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Robert W. Klein

ABSTRACT

The significant increase in the frequency and size of insurer failures in the latter part of the 1980s and other recent market problems have raised serious concerns about the adequacy of the states' regulatory oversight of the insurance industry. The industry's cost pressures, greater financial risk, and expanding geographic scope have forced the states to dramatically revamp the insurance regulatory framework. These efforts include strengthening financial standards, expanding financial reporting, improving monitoring tools, accrediting insurance departments, and streamlining market regulation. This article reviews the recent changes in state insurance regulation, as well as the economic and political forces that have influenced their direction. Industry criticisms of some of these regulatory reforms also are discussed.

Introduction

The business of insurance in the United States is regulated principally by the states. Each state has an insurance official who oversees the solvency of insurers doing business in the state as well as their rates and market practices. A considerable institutional framework has been developed over the years to assist insurance commissioners in performing these regulatory responsibilities. This framework comprises laws, regulations, procedures, personnel, knowledge, and physical facilities designed to oversee a $600 billion industry that affects the well-being of every citizen.

Insurance regulation in recent years has been subject to increasing external and internal forces that have forced the states to respond. Fundamental changes in the structure and performance of the insurance industry have complicated regulators' jobs. Competitive pressures have led insurers to assume greater risk in order to offer consumers more attractive prices and products, resulting in larger and more frequent insurer failures. Insurance markets have become increasingly national and international in scope as insurers have widened the boundaries of their operations. High costs in some lines of insurance and natu-

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ral disasters have intensified political pressure to constrain insurance prices and maintain availability of coverage.

The increase in insurer failures and other market problems have raised serious concerns about whether state insurance regulation provides adequate consumer protection. Congressional investigators have questioned whether the states are able to effectively regulate a diverse and global insurance industry (U.S. General Accounting Office, 1989, 1991). A report issued by the House Energy and Commerce Committee in 1990, then chaired by Rep. John Dingell (D-MI), criticized state insurance regulators for lacking adequate resources, using unreliable financial information, failing to coordinate, and performing infrequent and poorly prioritized examinations (U.S. Congress, 1990).[1] Various proposals suggest imposing a greater federal role in areas such as solvency, health insurance, property insurance underwriting, and catastrophe insurance. This recent activity is only the latest chapter in a long history of federal-state clashes over the regulation of the insurance industry.

These forces have had a considerable effect on insurance regulatory institutions. Some farsighted insurance commissioners, cognizant of the shortcomings of the insurance regulatory system, initiated a number of significant reforms before the problems generated criticism. Over the last decade, the states have engaged in an unprecedented program to rebuild the framework for insurance regulation. This effort has been directed primarily at strengthening solvency regulation by establishing more stringent capital standards, expanding financial reporting, improving monitoring tools, and certifying insurance departments. Other initiatives are underway to improve the efficiency of agent licensing and the regulation of rates and policy forms and to expand consumer protections against market abuses. State insurance departments have greatly increased their resources in terms of both people and technology to support these efforts. The National Association of Insurance Commissioners (NAIC) has played a key role in state regulators' efforts to coordinate and strengthen their oversight of the insurance industry.

The objective of this article is to acquaint researchers with the significant changes in state insurance regulation that have occurred over the last decade and discuss some of the economic and political forces that have prompted these changes. The next two sections provide an overview of the basic motivations, objectives, and principal functions of insurance regulators. This is followed by a discussion of the most important factors affecting public policy toward insurance and the devices used to carry out that policy. Recent developments in insurance regulatory institutions are then reviewed in terms of their reaction to economic and political forces.

[1] The Committee recently issued a second report (U.S. Congress, 1994), which concluded that the state insurance regulatory system remains "dangerously uncoordinated and inadequate" and invites continued fraud and abuse, despite reform efforts by the various states and the National Association of Insurance Commissioners.

Regulatory Objectives

Economists, political scientists, and legal scholars offer various theories to explain regulation and regulatory behavior. Some of these theories are normative in nature—i.e., what regulation should be—and some are positive—i.e., how regulators actually behave. Traditional *public interest theory* analyzes the role of regulation in correcting market failures and improving economic performance (e.g., Bonbright, 1961). The *economic theory* of regulation challenges this traditional view, arguing that regulation is primarily motivated by public officials' desire to redistribute resources to maximize their political support, which tends to favor concentrated economic interests rather than the "public interest" (Stigler, 1971; Jordan, 1972; and Peltzman, 1976). Political scientists have added to this discussion by considering the ideological as well as the self-interest motivations of regulators and focusing on the political and administrative aspects of regulation and the bargaining that occurs between different interest groups in shaping regulatory policy (Meier, 1985, 1988; Kalt and Zupan, 1984, 1990; and Levine and Forrence, 1990). It is not necessary to review these theories in detail here but it is important to understand what they imply about the motivations and objectives of insurance regulators.

Public Interest Theory

The public interest argument for the regulation of insurer solvency derives from inefficiencies created by costly information and agency problems (Munch and Smallwood, 1981). Owners of insurance companies have diminished incentives to maintain a high level of safety to the extent that their personal assets are not at risk for unfunded obligations to policyholders that would arise from insolvency. It is costly for consumers to properly assess an insurer's financial strength in relation to its prices and quality of service. Insurers also can increase their risk after policyholders have purchased a policy and paid premiums. Thus, in the absence of regulation, imperfect consumer information and agency problems would result in an excessive number of insolvencies. Solvency regulation is intended to limit the degree of insolvency risk in accordance with society's preference for safety. Regulators limit insolvency risk by requiring insurers to maintain a minimum amount of capital and meet other financial requirements.

The traditional explanation for regulation of insurance prices also involves costly information and solvency concerns (Joskow, 1973; Hanson, Dineen, and Johnson, 1974). Insurers' incentive to incur excessive financial risk and even engage in "go-for-broke" strategies may result in inadequate prices. Some consumers will buy insurance from low-price insurers without properly considering the greater financial risk involved. Poor incentives for safety could induce a wave of "destructive competition" in which all insurers are forced to cut their prices below costs to retain their market position. Thus, regulators must impose a floor under prices to prevent the market from imploding. This view essentially governed insurance rate regulation until the 1960s, when states

began to disapprove or reduce price increases in lines such as personal auto and workers' compensation.

The rationale offered for government restrictions on insurance price increases is that consumer search costs impede competition and lead to excessive prices and profits (Harrington, 1992). Further, imperfect consumer information and unequal bargaining power between insurers and consumers can make consumers vulnerable to abusive marketing and claims practices of insurers and agents. It also can be argued that it is costly for insurers to ascertain consumers' risk characteristics accurately, giving an informational advantage to insurers already entrenched in a market and creating barriers to entry that diminish competition (Cummins and Danzon, 1991). In this view, the objective of regulation is to enforce a ceiling that will prevent prices from rising above a competitive level and to protect consumers against unfair market practices. In addition, the public may express a preference for regulatory policies to guarantee certain market outcomes consistent with social norms or objectives.

Economic Theory

Alternatively, an economic theory of regulation suggests that self-interested insurance regulators are motivated to maximize political support rather than economic efficiency and, hence, will seek to enforce prices somewhere between the competitive level and profit-maximizing level, depending on cost and demand conditions and the relative political sensitivities of consumers to prices and insurers to profits (Peltzman, 1976). Harrington (1992) takes this a step further and suggests that government officials may reap political benefits from suppressing insurance prices below competitive levels if consumers and voters fail to appreciate the long-term adverse effects of such a policy.

Ideological Motivations

Meier (1988) incorporates additional variables in his model of the political economy of insurance regulation, including regulators' norms and resources, political leadership, the courts, and the saliency and complexity of regulatory issues. He hypothesizes that the insurance industry should favor regulatory policies that benefit it and oppose policies that restrict it. Meier further observes that the insurance industry is not a monolith and that different segments of the industry (small insurers, large insurers, agents, etc.) may have different views with respect to certain regulatory issues. The ability of the industry to influence regulation is hypothesized to be a function of its political resources, that is, its size and wealth.

Consumer groups are expected to push for greater regulation and favor policies that restrict the industry. Their success will be positively related to their size and contact with each other. Regulators are expected to support policies consistent with their policy goals—greater regulation—and their influence is positively related to their political resources. Political elites—the legislature and the courts—mediate among competing groups and pursue their own policy values. Meier suggests that, in the policy environment for insurance regulation, issues tend to be complex but generally not salient, with the excep-

tion of certain issues like no-fault auto insurance and unisex rating. This increases the influence of the industry and regulators over that of consumer groups and political elites. Despite such a general policy environment, Meier concludes that insurance regulation has not always promoted industry interests and that the direction of policy varies from state to state and issue to issue.

Interaction of Regulatory Objectives

Although Peltzman and Meier offer useful frameworks for analyzing regulatory policy-making, some additional observations are relevant to understanding the motivations of and constraints faced by insurance regulators. Public interest considerations still affect regulatory policy even if regulators are also influenced by political and bureaucratic factors. Regulators have incentives to adopt policies that increase economic efficiency as they can potentially increase their political support by correcting market failures and reducing deadweight losses. However, there will generally be constraints on how the economic gains from such policies can be redistributed among different interest groups to increase political support. Hence, efficiency-increasing regulatory policies may be thwarted by organized special interest groups that would be affected adversely by such policies. Limited information and other practical constraints also may prevent regulators from implementing market corrections. The perceptions of different actors with respect to how policies will affect the public interest also could influence actions motivated by ideological or "other-regarding" interests. Consequently, economists are not necessarily wasting their time when they advocate and offer analytical support for regulatory policies that will serve the public by improving economic efficiency.

Another observation is that, to the extent that both sellers and buyers of insurance act in their private self-interest, they should favor policies that transfer wealth to them and oppose regulatory restrictions that constrain their ability to maximize their respective objective functions. Presumably, insurers are willing to trade some limits on their activities to the extent that they are more than offset by wealth transfers which will increase profits. Similarly, consumers may accept less product diversity in return for lower regulated prices. On any given issue, the interests of different consumers can diverge just as those of insurers and agents can. For example, well-informed consumers who are willing to tolerate high risk for high returns may favor less stringent solvency regulation, while consumers who face greater information costs and/or who are more risk averse may favor tighter regulation, even if it is accompanied by lower returns. The possibility that the actions of voters and other actors that might influence insurance regulatory policy could be motivated by ideological views introduces an additional dimension to predicting regulatory outcomes.

At the same time, because of constrained information, firms and consumers may not correctly understand how their interests or others' interests will be affected by a given policy. Consumers, in particular, may be subject to misperceptions that cause them to favor policies, such as stringent price ceilings, which appear to be beneficial but that ultimately may harm them. Industry positions on a proposed regulation also may be based on misinformation or

incorrect assessments of the effects of the regulation. High-saliency, high-complexity issues are especially prone to misunderstanding. Misperceptions may be exacerbated by advocacy organizations that engage in "political entrepreneurship" to increase their membership and financial support by championing policies that appear to favor constituencies that they are courting. The media also may distort certain insurance issues in order to increase reader/viewer interest and support.

These determinants of regulatory policy suggest at least two possible sources of change in insurance regulatory institutions. One potential source is a change in the policy goals of regulation that would be triggered by a change in economic and political factors influencing regulation. For example, increased consumer concern about insurers' financial problems could cause a shift in policy focus toward more stringent solvency regulation. A second possible source of change would be developments affecting the ability of regulators to accomplish a given set of objectives. Such developments might include economic changes affecting the supply and demand for insurance, changes in the nature and severity of insurance market failures, new technologies, and actions of other government entities. These factors can induce regulators to change their rules and facilities in order to continue to achieve established policy objectives. Economic and technological changes also might make it more or less costly to achieve a particular policy objective, causing regulators to reallocate resources and possibly modify their objectives.

Regulatory Activities

Insurance regulatory activities are divided into two primary categories: solvency regulation and market regulation. Solvency regulation seeks to protect policyholders against the risk that insurers will not be able to meet their financial obligations. Market regulation attempts to ensure fair and reasonable insurance prices, products, and trade practices. Solvency and market regulation are inextricably related and must be coordinated to achieve their specific objectives. Regulation of rates and market practices will affect insurers' financial performance, and solvency regulation constrains the prices and products that insurers can reasonably offer.

All U.S. insurers are licensed in at least one state and are subject to solvency and market regulation in their state of domicile and other states in which they are licensed to sell insurance. Reinsurers domiciled in the United States also are subject to the solvency regulation of their domiciliary state. Some U.S. and non-U.S. insurers write certain specialty and high-risk coverages on a nonadmitted or surplus lines basis that are not subject to price and product regulation. Regulators still control entry to the nonadmitted market by imposing minimum solvency and trust requirements.

Financial Regulation

Regulators protect policyholders and society in general against excessive insurer insolvency risk by requiring insurers to meet certain financial standards

and to act prudently in managing their affairs. State statutes require insurers to meet minimum capital and surplus standards and financial reporting requirements and authorize regulators to examine insurers and take other actions to protect policyholders' interests. Solvency regulation polices various aspects of insurers' operations, including capitalization, pricing and products, investments, reinsurance, reserves, asset-liability matching, transactions with affiliates, and management.

Capital standards are the linchpin of solvency regulation. Capital and surplus provide a cushion against unexpected increases in liabilities and decreases in the value of assets. Capital also is intended to fund the expenses of a rehabilitation or liquidation of an insurer with minimal losses to policyholders and claimants. Insurers are required to have a certain amount of capital and surplus to establish and continue operations. When an insurer's capital and surplus falls below the minimum standard, it is considered to be legally impaired. When an insurer's liabilities exceed the value of its assets, that is, its capital and surplus is negative, it is insolvent. Regulators also may seize a company if they can show that it is in hazardous condition and ultimately will be unable to meet its obligations to policyholders.[2]

Traditional fixed minimum capital and surplus standards, which typically range from $500,000 to $6 million for a multiline insurer, are more appropriate for start-up operations than for established companies with significant premium volume and risk exposure. Insurers range widely in size and the types of risks they assume, which makes fixed minimum capital standards inadequate for many. In practice, regulators can and do take action against troubled insurers before they fall below the minimum standard, but such actions are subject to legal challenges, and regulators must convince a court that an insurer is in unsafe condition. The NAIC adopted model minimum risk-based capital (RBC) requirements for life insurers in 1992 and for property-liability insurers in 1993, which are intended to partially correct the deficiencies of fixed standards.

Insurers are subject to other regulatory requirements with respect to their financial structure and operations. Insurers are required to maintain records and file annual and quarterly financial statements with regulators in accordance with statutory accounting principles (SAP). Statutory accounting, which differs somewhat from Generally Accepted Accounting Principles (GAAP), seeks to determine an insurer's ability to satisfy its obligations at all times; GAAP measures the earnings of a company on a going-concern basis from period to

[2] All states have a battery of laws and regulations similar to NAIC model acts which authorize the insurance commissioner to take action against companies deemed to be in hazardous condition. The relevant NAIC model acts are the Insurers Rehabilitation and Liquidation Model Act, the Administrative Supervision Model Act, and the Model Regulation to Define Standards and Commissioners Authority for Companies Deemed To Be in Hazardous Financial Condition. Of course, as discussed below, insurers may institute legal challenges to regulatory actions under these statutes that impose costs on regulators and may discourage regulators from taking action without strong proof that action is warranted.

period. Under SAP, most assets are valued conservatively and certain nonliquid assets—e.g., furniture and fixtures—are not admitted in the calculation of an insurer's surplus. Statutory rules also govern such areas as how insurers should establish reserves for invested assets (life insurers only) and claims and the conditions under which they can claim credit for reinsurance ceded.

Other statutes and regulations pertain to insurers' investment practices and different aspects of their operations. Most states require insurers' investments to be diversified and many have placed limits on the amount of lower-quality bonds and other high-risk assets that insurers can invest in.[3] Holding company laws control transactions between affiliated companies, including the payment of dividends from a subsidiary to a parent. Insurers are prohibited from improper delegation of authority to managing general agents in the areas of pricing, underwriting, and paying claims.[4] In general, insurer managements are required to act prudently in protecting policyholders' interests, and regulators are authorized to seize control if management actions threaten a company's solvency.

Solvency Monitoring

Regulatory requirements are of little value if there is no mechanism to monitor insurers' compliance. Fundamentally, the objective of solvency monitoring is to ensure that insurers meet regulatory standards and to alert regulators if actions need to be taken against a company to protect its policyholders. Solvency monitoring encompasses a broad range of regulatory activities, including financial reporting, early warning systems, financial analysis, and examinations. The annual and quarterly financial statements filed by insurers serve as the principal source of information for the solvency monitoring process. Insurance commissioners may compel insurers to provide other information as necessary to assess their financial condition.[5]

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[3] Unfortunately, no standard reference summarizes the insurer investment laws of the various states. Compilations of state insurance laws are available from the National Insurance Laws Service.

[4] More specifically, the NAIC's Model Managing General Agents Act sets forth required contract provisions between an insurer and a managing general agent (MGA) to ensure that there are proper controls on the MGA's activities on behalf of the insurer. These contract provisions govern proper accounting of transactions and remission of funds, deposit of funds, business records, reassignment of the contract (which is prohibited), underwriting guidelines, claims settlement, sharing of interim profits, loss reserving, and reinsurance transactions. The model act also establishes duties of the insurer, including financial examinations of the MGA, loss reserve opinions, on-site review of MGA underwriting and claims processing operations, binding authority for reinsurance contracts, and notification to the insurance commissioner of MGA contracts.

[5] State laws authorizing the insurance commissioner to conduct examinations of insurers generally authorize the commissioner to look at all books and records of a company at any time. For example, Section 4 of the NAIC's Model Law on Examinations requires that insurers provide examiners with "free access to all books, records, accounts, papers, documents, and any or all computer or other recordings relating to the property, assets, business and affairs of the company being examined."

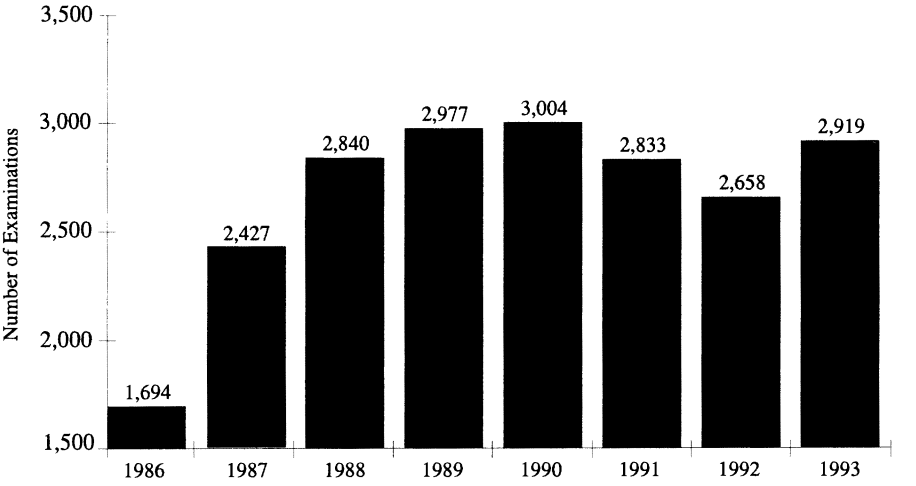
Insurers are required to file annual financial statements for the previous calendar year by March 1 with their domiciliary state, every state in which they are licensed to do business, and the NAIC.[6] Statements for the first, second, and third quarters must be filed 45 days after the close of the quarter. State insurance departments typically subject statements to a "bench" or "desk" audit by an in-house financial analyst or examiner who assesses the accuracy and reasonableness of the information that is filed and determines whether the insurer requires further investigation before its next regularly scheduled on-site examination. The NAIC also scrutinizes insurers' financial statements and disseminates its analysis to state insurance departments.

States generally prioritize the review of their domiciliary companies and any other companies that require expedited scrutiny. Most departments utilize some system of financial ratios or other tools to screen and prioritize insurers for analysis. Regulators also use NAIC financial information systems, including the Insurance Regulatory Information System, which includes the Financial Analysis and Surveillance Tracking system, and other reports. Various additional sources of information are often tapped, including Securities Exchange Commission filings, claims-paying ability ratings, complaint ratios, market conduct reports, correspondence from competitors and agents, news articles, and other sources of anecdotal information.

Examinations are a fundamental component of the solvency monitoring process. Traditionally, regulators have relied primarily on the comprehensive triennial examination, although regulators are authorized to examine insurers whenever they deem necessary. Some insurers may require examination more frequently than every three years, while others may need to be examined less frequently. State regulators now increasingly rely on the use of targeted examinations, which are limited in scope and which may be called because of special circumstances or in lieu of a regular comprehensive examination. The NAIC encourages the use of "association" or "zone" examinations, in which various states participate to consolidate efforts and avoid duplicative and redundant examinations of the same company. The NAIC's Financial Condition Subcommittee also may encourage nondomiciliary states to call a special association examination if an examination conducted by a company's domiciliary is inadequate or if the domiciliary state fails to conduct an examination when financial ratio results or other information indicate the need. There were 2,919 financial examinations in process in 1993, which means that roughly one in every three insurers was under examination sometime during the year (NAIC, 1995a). The frequency of examinations rose over the period from 1986 through 1993 in response to increased concerns about insurer solvency (see Figure 1).

[6] Some smaller and specialty single-state insurers (e.g., workers' compensation state funds, county mutuals, Blue Cross-Blue Shield plans, etc.) are not required to file statements with the NAIC.

Figure 1
Financial Examinations of U.S. Insurers Conducted, 1986 Through 1993



Source: National Association of Insurance Commissioners.
Note: Financial exams include all exams in process, regardless of initiation date and irrespective of completion.

Intervention and Guaranty Funds

The nature of the appropriate regulatory action for a troubled insurer varies depending on the circumstances, but the essential purpose is to prevent or minimize losses and to provide protection for policyholders. There are two levels of regulatory actions with respect to troubled companies: actions to prevent a financially troubled insurer from becoming insolvent and delinquency proceedings against an insurer for the purpose of conserving, rehabilitating, reorganizing, or liquidating the insurer (NAIC, 1992). Actions within the first category include hearings/conferences, corrective plans, restrictions on activities, notices of impairment, cease and desist orders, and supervision. Some of these actions may be conducted informally; others require formal measures. Similarly, some actions against insurers may be confidential and others may be publicly announced. Sales or mergers of troubled insurers are often negotiated by regulators to avoid market disruptions. A large number of troubled insurers subject to regulatory action are never publicly identified because their problems are resolved before more drastic action is required.

However, if preventive regulatory actions are too late or otherwise unsuccessful and an insurer becomes severely impaired or insolvent, then formal delinquency proceedings will be instituted. These measures can encompass conservation, seizure of assets, rehabilitation, liquidation, and dissolution. For many insurers, these actions are progressive. A regulator may first seek to conserve and rehabilitate a company to maintain availability of coverage and avoid adverse effects on policyholders and claimants, as well as lower insolvency costs. However, the regulator may ultimately be forced to liquidate and

dissolve the company if rehabilitation is not feasible. Regulators typically need court approval for such actions, which may be challenged by the troubled insurer.[7]

State guaranty associations exist to protect policyholders, claimants, and beneficiaries against financial losses due to insurer insolvencies. Fundamentally, the purpose of an insolvency guaranty law/association is to cover an insolvent insurer's financial obligations, within statutory limits, to policyowners, annuitants, beneficiaries, and third-party claimants.[8] Most states limit coverage of property-liability claims and death benefits to $300,000. Health insurance claims and cash values on life insurance policies and annuities are typically limited to $100,000. There are no limits on workers' compensation claims. All licensed insurers must belong to the state guaranty association. Guaranty funds are financed by assessments on member insurers' premiums written in covered lines of business in a state subject to an annual cap (usually one or two percent of premiums). With the exception of New York's property-liability guaranty fund, assessments are made after an insolvency occurs to cover the claims of the insolvent insurer. New York has a pre-insolvency assessment property-liability guaranty fund. Assessments also are made to cover the administrative expenses of guaranty funds. The burden of guaranty fund assessments are ultimately shared by all policyholders through higher insurance rates, taxpayers because of state premium tax offsets (in some states) and deductions for federal income taxes, and owners of insurers (Barrese and Nelson, 1994).

Rates and Policy Forms Regulation

Market regulation encompasses diverse issues and is approached somewhat differently by the various states. Rates and policy forms are subject to some form of regulatory approval in virtually all states. State laws typically require that rates not be inadequate, excessive, or unfairly discriminatory. For the personal property-liability lines, approximately half of the states require rates to receive prior approval before they go into effect. Other states allow insurers to implement personal lines rates without prior approval, placing greater reliance on competition to regulate prices. With the exception of workers' compensation and medical malpractice, commercial property-liability lines in most states are also subject to a competitive rating approach. Under such a system, regulators typically retain authority to disapprove rates if they find that competition is not working, although, in practice, such a finding rarely occurs.

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[7] For example, the liquidations of Security Casualty Company (*Washburn v. Dyson,* 127 Ill. 2d 434) and Main Insurance Company (*Schacht v. Main Insurance Company,* 122 Ill. App. 3d 826) in Illinois were contested by the owners.

[8] Most states have separate property-liability and life/health guaranty associations, although several states have combined associations with separate assessments. Klein (1992) provides an overview of the structure and provisions of and key policy issues affecting state guaranty funds. Current information on property-liability guaranty funds can be obtained from the National Conference on Insurance Guaranty Funds, and information on life/health funds can be obtained from the National Organization of Life and Health Guaranty Associations.

Premiums for life insurance and annuity products are generally not subject to regulatory approval, although regulators may seek to ensure that policy benefits are commensurate with the premiums charged. Only a handful of states subject health insurance rates to prior approval with the rest using a file-and-use system or no provisions for review. Generally, however, the rates of Blue Cross-Blue Shield plans are approved by the insurance commissioner, and states also enforce minimum loss ratio requirements for Medicare supplement insurance and credit insurance products.[9]

Historically, many property-liability insurers adopted rates filed by an advisory organization (e.g., the Insurance Services Office) or filed deviations from advisory rates. Most states now use a system in which advisory organizations file developed and trended loss costs (including loss adjustment expense) only.[10] Insurers are allowed to file multipliers to these loss costs, which include provisions for expenses, profit and investment income, or full rates as before. This system aims to promote independence and competition among insurers by removing advisory rates as a potential focal point for insurer pricing.

In addition, insurers must obtain approval for the products they sell and, specifically, the policy forms that they use. Regulators seek to ensure that policy provisions are reasonable and fair and do not contain major gaps in coverage that might be misunderstood by consumers.

Market Practices Regulation

Regulators police insurers' and agents' sales and underwriting activities to make sure they adhere to certain standards and claims are handled according to the provisions of the insurance contract. The objective is to prevent abusive practices—for example, false sales illustrations or failure to pay legitimate claims on a timely basis—that take unfair advantage of consumers. Responding to consumer complaints and performing market conduct examinations are the primary ways in which insurance departments regulate market practices. State insurance departments reported 482,789 consumer complaints and 2,323 market conduct exams for 1993 (NAIC, 1995a). Most departments have established toll-free hotlines and special consumer services units to handle complaints against insurers and agents. Analysts attempt to determine whether a complaint has merit and may possibly constitute a violation of state laws or regulations. Most complaints are resolved without resorting to formal administrative or legal actions that could result in fines against an insurer or agent or even li-

[9] The NAIC maintains charts on the rate regulatory systems of the various states for the different lines.

[10] According to a 1994 NAIC loss cost survey, only four states have not implemented or do not intend to implement a loss cost system for personal lines. Only two states do not use a loss cost system for commercial lines, excluding workers' compensation. Fifteen states do not use a loss cost system for workers' compensation. States differ somewhat in terms of the components of advisory loss costs that are allowed and the way in which companies can file multipliers. See Klein (1991) for an analysis of the impact of loss cost systems in workers' compensation insurance.

cense suspensions or revocations.[11] Based on complaint data reported to the NAIC by some insurance departments for the period from 1988 through 1994, less than 0.3 percent of complaints were referred for disciplinary action. Of the complaints reported, the company position was upheld in 28.4 percent.[12]

Market conduct examinations are held on a routine basis and can be triggered by complaints against an insurer and other indicators. Because regulators cannot feasibly monitor every transaction that occurs, examinations and financial penalties must be used strategically to increase insurers' incentives to comply with the law. Examiners review a sample of an insurer's policy files and claims files as well as other internal records to ensure the company's compliance with state laws and regulations. Generally, examiners confirm that the rates charged are consistent with the rates that have been filed and that claims covered under a policy are paid within a reasonable period of time. Unfair marketing and underwriting practices are more difficult to police because documented evidence of such abuses often is lacking. Market conduct examiners may review company correspondence and training materials to detect illegal behavior.

Other Functions

State insurance departments perform various other functions that are part of or related to their regulatory functions. The insurance commissioner is generally held accountable for the overall performance of insurance markets under his or her jurisdiction, and this leads to a number of activities designed to support market operations. Enhancing consumer information about insurers' prices, products, and financial strength is a critical function given the heavy reliance on competition to ensure good market performance. Regulators enhance consumer information by publishing brochures, speaking to schools and community groups, answering consumer inquiries, and distributing information on insurers' prices, complaint experience, and financial ratings. Forty-seven departments have a consumer telephone "hot line" or direct line, and regulators answered 2.9 million inquiries in 1993 (NAIC, 1995a).

Other functions performed by state insurance departments include agent licensing and education, antifraud enforcement, coordinating market assistance plans, collecting premium taxes, and providing public information. In addition, insurance commissioners are frequently involved in developing legislation affecting public policy on insurance, such as tort reform.

Regulatory Resources

The size of insurance departments varies significantly depending on the size of their markets and other factors, such as the number of domiciliary compa-

[11] Complaint statistics on individual insurers can be obtained directly from most state insurance departments.

[12] These data do not include complaints filed in all states for all years. Some states may not report complaints resolved in favor of the company.

nies and whether they provide ancillary services. In 1993, the number of state insurance department personnel ranged from 24 in Wyoming to 1,098 in California (see Table 1). Full-time equivalent staff for all departments combined amounted to 9,678, in addition to 2,134 contract staff. For fiscal year 1995, state insurance department budgets ranged from $1.2 million in Wyoming to $97 million in California, with a total combined budget for all departments of approximately $647.9 million. Insurance department staff includes actuaries, financial examiners and analysts, rates and forms analysts, market conduct examiners, attorneys, fraud investigators, and systems analysts. The availability of qualified actuaries to state insurance departments has been a special issue because of the actuarial questions involved in rate review and financial analysis. According to NAIC statistics, 36 departments had at least one staff actuary and an additional 11 departments had contract actuaries in 1993 (NAIC, 1995a).

Role of the NAIC

Policing a large and diverse insurance industry, with many insurers operating on an interstate basis, has been a particular challenge for the individual states. Insurance commissioners have used their national association extensively in coordinating their regulatory activities. The NAIC is a private, nonprofit association of the chief insurance regulatory officials of the 50 states, the District of Columbia, and the four territories. It was established in 1871 to coordinate the supervision of multistate companies within a state regulatory framework, with special emphasis on insurers' financial condition. The NAIC functions in an advisory capacity, as well as a service corporation for state insurance departments.

State regulators are able to achieve considerable efficiencies by pooling resources through the centralized facilities provided by the NAIC. For example, it is much more efficient to have one central repository of insurer financial data than for every department to capture the same data from the same insurer. The objective is to allow states to focus their resources on regulation of their markets and the solvency of their domiciliary companies, relying on support services from the NAIC.

The NAIC supports state regulatory efforts in a number of ways. It maintains an extensive insurance data base and computer network linking all insurance departments; analyzes and informs regulators as to insurers' financial condition; coordinates examinations and regulatory actions with respect to troubled companies; establishes and certifies states' compliance with minimum financial regulation standards; provides financial, reinsurance, actuarial, legal, computer, and economic expertise to insurance departments; values securities held by insurers; analyzes and lists nonadmitted alien insurers; develops uniform statutory financial statements and accounting rules for insurers; conducts education and training programs for insurance department staff; develops model laws and coordinates regulatory policy on significant insurance issues; and conducts research and provides information on insurance and its regulation to state and federal officials and the general public.

Table 1
Insurance Department Resources in 1993

State	Domestic Insurers	Nondomestic Licensed Insurers	Premiums Written	Revenues	Fiscal Year 1995 Budget	Full-Time Equivalent Staff
Alabama	107	1,300	$9,194,596,219	$189,855,846	$3,944,680	76.0
Alaska	11	1,047	1,421,366,620	30,159,550	3,837,400	46.0
American Samoa	n.a.	n.a.	1,617,083	n.a.	n.a.	n.a.
Arizona	681	1,567	8,919,826,705	118,642,468	4,450,100	94.0
Arkansas	81	1,391	4,252,936,157	92,712,995	4,031,515	76.0
California	241	1,197	63,875,936,918	1,256,776,788	97,039,000	1,097.5
Colorado	97	1,435	9,313,250,905	98,996,620	5,777,949	84.5
Connecticut	128	915	13,718,196,779	179,003,577	10,586,848	101.0
Delaware	153	1,262	2,687,140,831	41,639,188	3,104,200	45.0
District of Columbia	22	1,212	2,983,199,031	32,754,630	4,810,000	42.0
Florida	665	1,590	33,111,173,932	302,473,767	52,073,898	895.5
Georgia	102	1,435	13,827,446,178	397,583,894	15,808,410	188.0
Guam	6	88	96,218,849	8,346,489	496,409	7.0
Hawaii	56	837	3,600,430,945	82,249,445	1,454,367	43.0
Idaho	34	1,406	2,399,752,555	36,876,100	4,589,000	64.5
Illinois	496	1,407	31,831,913,861	227,396,382	20,420,000	327.0
Indiana	202	1,527	14,063,192,844	125,986,054	4,255,722	72.0
Iowa	245	1,376	7,188,164,145	104,758,582	5,202,186	83.5
Kansas	66	1,465	5,902,433,925	133,598,947	6,919,385	171.2
Kentucky	72	1,370	6,862,673,084	125,746,113	8,220,900	112.0
Louisiana	180	1,544	8,035,500,132	165,775,135	15,571,172	224.0
Maine	32	802	2,675,518,375	41,457,865	6,395,809	73.0
Maryland	105	1,347	11,682,561,594	155,018,294	12,139,612	227.0
Massachusetts	99	1,258	23,583,246,025	271,204,088	8,111,645	138.0
Michigan	153	1,302	28,969,869,715	187,374,755	16,392,600	125.0
Minnesota	218	1,209	12,386,122,693	144,612,419	7,441,854	120.6
Mississippi	60	1,417	4,084,798,265	97,293,843	4,247,474	85.0
Missouri	299	1,505	12,370,826,567	155,476,933	11,325,188	190.0
Montana	24	1,394	1,668,572,263	32,253,189	1,480,462	35.0
Nebraska	135	1,437	4,151,338,836	60,603,635	5,117,554	97.2
Nevada	21	1,456	3,159,401,216	79,570,034	6,565,262	43.0
New Hampshire	44	794	2,387,634,099	40,511,676	2,903,223	46.0
New Jersey	104	1,028	25,976,178,436	235,334,000	29,562,000	520.0
New Mexico	24	1,574	4,470,078,932	69,762,933	3,000,000	67.0
New York	420	569	64,615,148,028	692,460,855	86,669,200	929.0
North Carolina	108	1,120	14,347,367,654	234,627,875	23,984,542	363.0
North Dakota	59	1,310	1,285,582,830	23,548,699	2,294,310	43.5
Ohio	286	1,477	24,950,647,715	349,218,399	16,292,353	218.0
Oklahoma	124	1,469	6,423,003,072	113,691,060	5,830,749	104.0
Oregon	86	1,445	8,260,994,615	69,855,203	5,527,308	89.3
Pennsylvania	333	1,223	38,535,774,008	414,148,815	16,653,000	256.0
Puerto Rico	59	248	2,332,290,224	28,016,215	4,631,000	114.0
Rhode Island	36	1,014	3,126,733,706	56,842,092	3,215,294	50.0
South Carolina	50	1,372	6,553,876,593	87,783,080	5,584,221	105.0
South Dakota	64	1,411	1,571,994,651	34,064,920	1,312,882	28.0
Tennessee	114	1,461	10,682,037,941	189,010,318	4,661,200	88.0
Texas	612	1,560	40,923,990,940	548,439,061	42,168,306	1,019.8
U.S. Virgin Islands	5	229	151,651,615	8,160,966	1,400,000[a]	24.0
Utah	58	1,448	3,640,481,568	60,267,392	2,857,200	55.0
Vermont	308	818	1,348,448,682	27,311,000	2,030,000	42.0
Virginia	82	1,300	13,090,500,809	190,002,525	15,414,617	169.0
Washington	82	1,254	12,942,910,083	130,759,722	9,507,591	146.0
West Virginia	19	1,202	2,731,593,900	84,265,235	3,182,115	54.0
Wisconsin	341	1,368	13,228,392,083	106,407,681	6,216,500	140.0
Wyoming	5	1,100	888,448,039	13,730,574	1,211,421	24.0
Total	8,214	—	$652,484,983,470	$8,784,417,921	$647,919,633	9,678.0
Mean	152	1,228	$11,863,363,336	$162,674,406	$11,998,512	179.2

Source: National Association of Insurance Commissioners.
[a] Fiscal year 1994.

Forces Influencing Insurance Regulation

Two forces have heavily influenced the evolution of insurance regulatory functions and institutions. One factor has been the increasing diversity of insurance products and the types of risks that insurers have assumed. The other factor is the geographic extension of insurance markets with a number of insurers operating on a national and international basis, which, in turn, has increased the interdependence among state regulators. Consumer resistance to cost-driven price increases and increased federal involvement in insurance regulation also have had an impact on state regulatory policy.

Industry Changes

Over time, a wide variety of insurance products and services has become available, reflecting the growth of the economy and the diversity of buyer needs and tastes. Life insurers now offer an expansive menu of life insurance policies, annuities, and other investment-sensitive contracts with different risk-return characteristics. Life insurers' reserves for pension-related products (individual and group annuities and supplemental contracts with life contingencies) grew ten-fold in 50 years, from one-quarter of life insurance reserves in 1950 to 2.3 times in 1992 (American Council of Life Insurance, 1993a).[13]

The increased significance of interest-sensitive products and insurers' greater exposure to disintermediation (i.e., policy loans, surrenders, and lapses) have increased the importance of appropriate asset-liability matching strategies. At the same time, competitive pressures have induced insurers to maintain high crediting interest rates on their policies as yields on their own investments have fallen. Company investment officers have been pressured to increase investment yields and preserve profit margins by lengthening bond maturities and investing in lower-grade securities. Many life insurers have assumed greater financial risk while their profitability has dropped. Some insurers have invested heavily in derivative securities, to either hedge interest rate risk or preserve investment returns.

Dramatic changes also have occurred in the health insurance industry. Severe medical cost inflation and competition within their own industries have led employers to search aggressively for savings in their health insurance bills. The standard indemnity policy has become less common as insurers have been compelled to redesign their products and services to allow employers more cost-containment options. Many insurers now offer managed care programs and preferred provider arrangements with doctors and hospitals. The provision of third-party administrative services also is an important market for insurers with the growing number of self-insured employer plans. The dividing lines between insurers and health care providers blur as the financing and delivery of health services become more closely linked and firms take on specialized functions and form partnerships to take best advantage of their relative strengths. In response to these changes, many insurers tighten their underwriting standards and narrow their pooling of risks in order to control prices for

[13] Wright (1991) provides an insightful review of structural changes in the life insurance industry.

low-risk groups, which decreases availability and raises premiums for less healthy groups. The revolution in the financing of health care continues to move forward in the marketplace while government officials wrestle with the public policy issues.

Finally, the nature of the property-liability insurance business is very different today than it was 50 years ago. Property-liability insurers now cover a wide range of exposures from residential fire to product liability. The long claim payout tail for commercial liability lines makes proper pricing and reserving difficult and subject to manipulation. Shifting liability rules also increase the margin for error and insolvency risk. Cyclical pricing and periodic crises, prompted by severe loss shocks, continue to plague the industry (Cummins, Harrington, and Klein, 1991). Significant cost inflation in some commercial lines has induced some buyers to seek alternative sources of coverage, such as risk retention groups, or become self-insured, which increases competitive pressure on traditional insurers. Climatic changes and extensive building in high-exposure areas have increased catastrophe hazards in property lines. Reinsurers are affected by these same problems, and their failures have helped to bring down a number of primary insurers. Greater risk and depressed profits will continue to be important factors for property-liability insurers, as they will be for the other sectors of the industry.

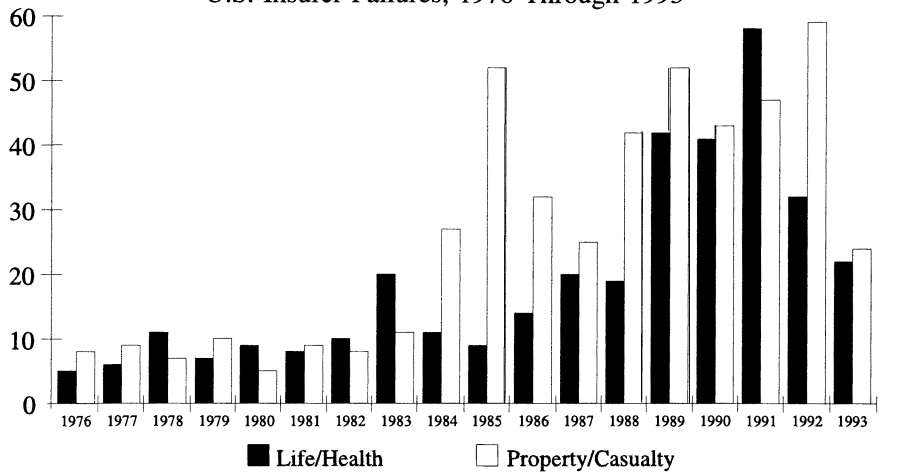
The insurance industry also has become more diverse in terms of firm size and organization. A significant number of small, independent insurers still sells property and life insurance in a limited geographic area. However, large national carriers now account for a large share of many markets, relegating other insurers to niches they are better positioned to serve. The top ten property-liability insurers accounted for 40.4 percent of net premiums written in 1994, compared with 34.4 percent in 1960. Foreign companies also are making increasing inroads into the U.S. domestic market, while some U.S. insurers, such as the American International Group, are establishing a significant presence overseas. Fierce competition forces insurers in all sectors to streamline their operations and abandon unprofitable lines. Many analysts predict substantial consolidation within the industry in the next decade as insurers seek to adjust to economic and regulatory changes and improve their efficiency (Conning & Company, 1994).

Predictably, the increased financial risk assumed by insurers, combined with other economic events, has caused the number and size of insurer failures to increase significantly since the early 1980s (see Figure 2). Approximately 20 insurers failed every year over the period from 1976 through 1984, compared to an annual average of 70 failures for the period from 1984 through 1993. Both property-liability and life/health guaranty fund assessments increased significantly in the latter half of the 1980s, as the number and size of insolvencies increased (see Table 2), although these assessments still represented only a small portion (less than 0.3 percent) of industry premiums in any given year. The most common causes of property-liability insurer failures are deficient loss reserves, inadequate rates, and rapid growth (A. M. Best Company, 1991). Other factors involved in property-liability insolvencies include fraud, overstated assets, significant changes in business, reinsurance failure, and catastrophe losses. The most frequent causes of life/health insurer failures are inadequate pricing and rapid growth, followed by problems of affiliates, overstated assets,

fraud, significant changes in business, reinsurance failure, and new management (A. M. Best Company, 1992; American Council of Life Insurance, 1990).

The industry's increasing complexity, risk, and geographic scope place additional demands on regulators, who must try to limit insolvency risk and still allow insurers to continue to innovate and compete. Industry developments

Figure 2
U.S. Insurer Failures, 1976 Through 1993



Source: A.M. Best Company and National Association of Insurance Commissioners.

Table 2
Net Guaranty Fund Assessments, Inception to 1992

Year	*Property-Liability*	*Percent Industry Premiums*	*Life/Health*	*Percent Industry Premiums*
Prior to 1979	$139,349,343	—	$5,492,822	—
1979	47,022,703	0.0521	9,907,005	0.0117
1980	18,171,429	0.0190	3,917,198	0.0042
1981	49,772,896	0.0501	7,617,801	0.0072
1982	41,109,087	0.0395	8,397,682	0.0070
1983	30,619,239	0.0280	57,428,570	0.0483
1984	107,497,362	0.0906	30,387,255	0.0225
1985	301,181,198	0.2079	26,478,790	0.0170
1986	514,409,332	0.2906	31,507,440	0.0162
1987	912,953,685	0.4714	87,174,049	0.0409
1988	464,840,383	0.2298	75,672,089	0.0330
1989	713,869,682	0.3418	150,978,215	0.0618
1990	450,272,668	0.2065	150,654,563	0.0571
1991	434,845,812	0.1948	773,022,734	0.2930
1992	360,728,040	0.1584	674,354,024[b]	0.2391
Total	$4,586,727,914[a]		$2,092,990,237	

Source: National Conference of Insurance Guaranty Funds and National Organization of Life and Health Insurance Guaranty Associations.
[a] Includes $85,055 from year not specified.
[b] Does not include data from Arkansas and Puerto Rico.

have forced public officials to reassess this balance and modify regulatory policies. Most insurers possess sufficient competence and incentives for safety so that they do not pose a significant solvency risk. The problem lies with insurers that do not possess the requisite skills or incentives to survive in the marketplace. The greater complexity of products and investment strategies increases the opportunity for mismanagement, excessive risk taking, and fraud, which can lead to costly insolvencies. Consumers, with limited incentives for safety because of guaranty fund protection, face greater difficulty in discerning the riskiness of insurers and the value of their products. The expanding geographic scope of insurer operations and insurance markets also makes state regulators' oversight job more difficult and increases the need for coordination among states. These developments have required regulators to become more sophisticated in policing insurers' financial structure and activities to continue to achieve established public policy goals for safety and consumer protection.

Interdependence Among States

The extension of insurers' operations across state boundaries has increased the interdependence among insurance departments in carrying out their regulatory responsibilities. The typical state has 1,000 to 1,500 licensed insurers operating within its borders, most of which will be domiciled in other states (see Table 1). It would be very costly and inefficient for each state to closely monitor all of its licensed insurers for solvency. Thus, states tend to concentrate solvency oversight on their domestic insurers and defer the responsibility for other insurers to their domiciliary jurisdiction. However, to a lesser degree, states still monitor the financial condition of nondomiciliary companies and will step up their oversight if the domiciliary state fails to do its job. At the same time, each state regulates the insurance products that are sold within its borders and the terms under which they are sold. In principle, this is an efficient way to delegate regulatory responsibilities in a state-based system, but it also means that each state is dependent on the quality of regulation in other jurisdictions. This interdependence creates vulnerabilities as well as potential levers to induce states to do a good job in regulating.

Domiciliary and nondomiciliary states have somewhat different incentives in regulating the solvency of an insurer, and these different incentives can be a source of tension. A state has a strong interest in the expansion of a domestic company to the extent that the company's expansion boosts employment, income, and tax revenues in the state. A nondomiciliary regulator is interested primarily in how well the insurer serves the local market in terms of offering low prices and high-quality products. Both domiciliary and nondomiciliary regulators have interests in the continued solvency of the insurer but those interests are not exactly the same. The interests of the domiciliary regulator will be more closely aligned with that of equityholders, while those of the nondomiciliary regulator will be more influenced by policyholders. The domiciliary state may be willing to tolerate greater financial risk and exercise greater forbearance than the nondomiciliary regulator, given that insolvency costs are mostly allocated to the states where policyholders reside and that constraining an insurer's operations could have a negative impact on the domiciliary state's economy. Neither the domiciliary nor the nondomiciliary regulator will favor premature intervention, which would unnecessarily disrupt local markets,

but the nondomiciliary regulator will want to see prompt action taken if insolvency risk is high.[14] Market regulation also can create negative externalities between states, but competition and regulatory counter-measures effectively limit the ability of a state to extract cross-subsidies from other states.

Other Factors

A number of other factors have a significant impact on the direction of insurance regulatory policy. Annual surveys document increasing public concern about the financial solidity and market practices of insurers, which has helped to shift the political balance toward more stringent regulation (American Council of Life Insurance, 1993b, and Insurance Information Institute, 1993). High costs in some lines increase political pressure on regulators to constrain price increases and insurers' efforts to lower their exposure to risk. At the same time, state fiscal constraints impede insurance regulators' efforts to increase their funding and force them to increase productivity through greater reliance on technology and services provided by the NAIC. Federal intervention constrains state insurance commissioners in some areas (e.g., risk retention groups, employer-sponsored health plans) and causes them to increase regulation in other areas (e.g., Medicare supplement insurance).

Significant Regulatory Developments

The forces described above create serious challenges for state insurance regulation. When faced with a crisis, institutions can either resist change and ultimately fail or make the adaptations necessary to survive. The states have chosen the latter course with respect to insurance regulation and with good reason. Inaction could result in substantial economic and political costs for state officials if a number of major insurer insolvencies were to occur and the federal government was forced to step in. The NAIC's adoption of a Solvency Policing Agenda in 1990 signaled insurance commissioners' strong commitment to further regulatory reforms that were already underway at that time (NAIC, 1990c).[15] The states' rebuilding program has several elements: more stringent financial standards and reporting requirements and enhanced solvency monitoring, increased resources, improved enforcement procedures, more effective use of technology, enhanced market efficiency, selective consumer protection actions, accreditation of insurance departments, and better coordination among states.

Risk-Based Capital

Perhaps the most significant regulatory response to increased risk assumption by insurers and the greater complexity of risk exposures has been the adoption of more stringent restrictions on insurers' transactions and financial

[14] This situation is reflected by the NAIC's formation of special working groups to deal with troubled multistate insurers, such as Executive Life of California and Kentucky Central. These working groups allowed all affected states, domiciliary and nondomiciliary, to share information and agree on appropriate regulatory actions when these insurers faced financial difficulty.

[15] The NAIC Solvency Policy Agenda was updated in 1991 (NAIC, 1991).

structures. These restrictions take the form of increased capital and investment reserve requirements as well as constraints on specific investments and transactions. In one sense, this makes regulators' job easier by limiting the parameters of insurer risk taking. On the other hand, these restrictions can increase the complexity of enforcement as well as raise insurance prices and encounter political opposition from insurers, the investment community, and insurance buyers adversely affected by the restrictions.

Because of the limitations of fixed minimum capital standards, in 1990, the NAIC began consideration of replacing existing fixed minimum capital requirements for insurers with risk-based capital (RBC) standards that would vary with the amounts and types of exposures that insurers face. Risk-based capital is intended to be a *minimum* regulatory capital standard and not necessarily the full amount of capital that an insurer should hold to meet its safety and competitive objectives. The stated objectives of the NAIC risk-based capital requirements are to provide a standard of capital adequacy that is related to risk, raises the safety net for insurers, is uniform among states, and provides authority for regulatory action when actual capital falls below the standard. After extensive testing and discussion, the NAIC adopted a life/health RBC formula and model law in 1992. Filing of life/health RBC results became effective with the 1993 annual statement filed in March 1994. Property-liability risk-based capital requirements were adopted by the NAIC in 1993 and became effective with the 1994 annual statement filed in 1995. Work also is underway to refine and standardize RBC requirements for health-related business that would apply to all risk-bearing entities.

The NAIC's life/health insurance RBC formula encompasses four major categories of risk: asset risk, insurance or pricing risk, interest rate risk, and business risk.[16] Asset risk encompasses the risk of a decline in the market value of an insurer's investment portfolio. Insurance risk stems from the possibility that premiums and reserves are inadequate to cover benefit payments. Interest rate risk derives from potential liquidity problems arising from disintermediation due to interest rate changes. Business risk pertains to insurers' potential obligation for guaranty fund assessments. The risks addressed by the NAIC's property-liability formula include asset risk, credit risk (uncollectible reinsurance and other receivables), underwriting (pricing and reserve) risk, and off-balance sheet risk (e.g., guarantees of parent obligations, excessive growth). The formulas apply factors to various amounts reported in (or related to) the annual statement to determine RBC charges for each type of risk. A covariance adjustment is made to the accumulated RBC charges to account for diversification among major risk categories. The resulting adjusted total RBC amount is compared to an insurer's actual *total adjusted capital* (TAC) to determine its RBC position.[17] Insurers are required to report their risk-based capital and total

[16] See Webb and Lilly (1995) for a detailed review of the NAIC's life insurance risk-based capital model law and formula.

[17] In the life/health insurance formula, certain reserves (asset valuation reserve, voluntary investment reserves, and 50 percent of its dividend liability) are added to reported capital and surplus to determine an insurer's total adjusted capital. The property-liability formula includes adjustments for certain affiliate transactions and for reserve discounting.

adjusted capital in their annual statements, but the details of their calculations are filed in a confidential report.

Under the risk-based capital model law, certain company and regulatory actions are required if a company's total adjusted capital falls below a certain level of risk-based capital. Four RBC levels for company and regulatory action are established with more severe action required at lower levels. An insurer falling between the highest ("company action"—200 percent of "authorized control" level RBC) and second-highest ("regulatory action"—150 percent of "authorized control" level) levels is required to explain its financial condition to the insurance commissioner and how it proposes to correct its capital deficiency. When an insurer slips below the regulatory action level, the commissioner must examine the insurer and institute corrective action, if necessary. Between the third ("authorized control") and fourth ("mandatory control"—70 percent of "authorized control" level) levels, the commissioner is authorized to rehabilitate or liquidate the company. If an insurer's capital falls below the lowest threshold, the commissioner is required to seize control of the insurer.

The NAIC's life/health insurance risk-based capital formula met only limited industry opposition during its development, but the property-liability formula generated much controversy due to the greater difficulty in measuring property-liability risks. Some insurers have criticized the property-liability underwriting RBC factors for long-tail liability lines for being too high relative to short-tail property lines. The industry has argued that the factor for reinsurance recoverables should be reduced and that all credit RBC charges should be grouped separately in the covariance adjustment (which would produce a lower effective charge for reinsurance) to encourage greater risk spreading through reinsurance. There is no adjustment in the formula for the inverse relationship between size and variability in underwriting results (Barth, 1994). Further, the current formula does not address catastrophe risks and interest rate risk, which are still under study by the NAIC. Other comments focus on the relative weights of the major RBC components and the possible vulnerability of the formula to understatement of loss reserves. Finally, the NAIC has been criticized for using a ratio-based system rather than more dynamic alternatives, such as cash flow simulation (Cummins, Harrington, and Niehaus, 1993, 1995).

Two empirical studies evaluate the performance of the property-liability insurance risk-based capital formula in classifying troubled insurers. Grace, Harrington, and Klein (1993) estimate 1990 and 1991 RBC results for insurers that subsequently failed in 1991 through 1993 and find that, while the ratio of actual capital to RBC was negatively and significantly related to insolvency risk in both univariate tests and multiple logistic regressions, relatively few failed companies had RBC ratios that would have triggered regulatory action prior to their failure. A subsequent study by Cummins, Harrington, and Klein (1994), employing a similar data set and a multiple logistic regression model of insolvency risk, determines that the accuracy of the RBC formula in classifying failed and surviving insurers could be materially improved by adjusting the weights of the basic RBC components, and they include firm size and organization form variables in the formula. Coincidentally, they find that the NAIC risk-based capital formula classifies small firms more accurately than large firms.

There are different perspectives on how RBC will affect the industry (see Cummins, Harrington, and Niehaus, 1993). NAIC studies suggest that only a small fraction of insurers will fail to meet their RBC requirement without taking steps to lower their risk or raise capital (see Table 3). However, some industry analysts have observed that insurers that substantially exceed their RBC standard have taken steps to reduce risk and/or increase capital to achieve a higher capital-to-RBC ratio and increase their attractiveness to safety-conscious buyers. Given inherent imperfections in the RBC formula, such actions could distort market decisions and unnecessarily raise prices or cause other inefficiencies. The market impact of RBC depends greatly on the credence it is given by insurance buyers.[18] At a minimum, it should strengthen the hands of regulators in taking action against some inadequately capitalized insurers and prompt other insurers to strengthen their balance sheets.

Asset Valuation Reserve

Another important development in regulatory requirements for life/health insurers is the adoption of the asset valuation reserve and the interest maintenance reserve requirements. Previously, life/health insurers were required to set aside reserves for potential losses on bonds and stocks only through the mandatory securities valuation reserve. No mandatory cushion for losses existed for other major investments, which became a problem when the economy soured. The asset valuation reserve extends and refines reserve requirements for all major asset classes including real estate and mortgage loans. The interest maintenance reserve also requires insurers to amortize interest-related gains and losses over the remaining life of the disposed asset. Both the asset valuation reserve and the interest maintenance reserve became effective with the 1992 statement filed in 1993.

Investment Model Law

The high-risk investment strategies of some insurers and the insurer failures that occurred when the bottom dropped out of the junk bond and real estate markets in the early 1990s have led regulators to reconsider their oversight of the asset side of the balance sheet. Historically, state laws regulate insurers' investments, but these laws were relaxed over the years to allow insurers to take advantage of high-yield investments to support new products. This changed when the junk bond problems of Executive Life and several other insurers prompted the NAIC, in 1991, to adopt a model regulation restricting an insurer to no more than 20 percent of its assets in noninvestment grade bonds, with additional restrictions on the proportions of assets in the lower grade categories.[19] Several states adopted the model regulation or similar restrictions on junk bonds.

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[18] The NAIC model act prohibits insurers, agents, and other parties from using an insurer's RBC results in marketing efforts. Enforcement of this prohibition may prove to be difficult and cannot prevent consumers from obtaining and using this information.

[19] Securities held by insurers are valued and classified as to investment quality by the NAIC's Securities Valuation Office. Insurers must use these values and classifications in reporting investments on their annual statement.

Table 3
Risk-Based Capital Testing Results, 1992 Data

Total Adjusted Capital As Percentage of ACL Risk-Based Capital	*Property-Liability Insurers*			*Life/Health Insurers*[a]			
	Number of Companies	*Percent*	*Percent of Industry Premiums*	*Number of Companies*	*Percent*	*Percent of Life Insurance in Force*	*Percent of Accident and Health Premiums*
0–70 Percent	33	1.6	0.4	18	1.2	0.4	4.0
70–100 Percent	9	0.4	0.1	7	0.5	0.0	0.2
100–150 Percent	25	1.2	0.6	17	1.1	1.2	0.7
150–200 Percent	50	2.5	1.3	32	2.2	2.5	3.8
200–250 Percent	50	2.5	4.1	39	2.6	4.5	3.9
Over 250 Percent	1,869	91.8	93.5	1,369	92.4	91.5	87.5
Total	2,036	100.0	100.0	1,482	100.0	100.0	100.0

Source: National Association of Insurance Commissioners.
[a] Results based on 1991 data.

Yet regulators were still concerned about other high-risk assets and diversification issues, and the NAIC, in 1991, established a working group to draft a comprehensive model law covering all insurer investments. Although insurers acknowledge that there must be some limits on risk taking and that there should be proper asset-liability matching, they have resisted regulations that significantly constrain their flexibility in tailoring their investments. Most regulators favor a "pigeonhole" approach, which sets specific percentage limitations and diversification requirements for various assets. This approach was opposed by the industry as being unduly restrictive in early drafts of the model law, but that opposition lessened as later drafts eased specific investment limitations.

Several provisions of the draft model act have received considerable criticism from the insurance industry and investment community. Foreign investments would be limited to 3 percent (5 percent for property-liability insurers) of admitted assets per country, with no differentiation between countries for countries in noninvestment grade categories. Commercial mortgage loans would be limited to 30 percent (10 percent for property-liability insurers) of admitted assets. Property-liability insurers would be required to maintain an amount of liquid investments (cash, high and medium grade investments, common stocks, and reinsurance recoverables on paid and unpaid losses) equal to their loss, loss adjustment expenses, and unearned premium reserves, discounted to present value.[20] Equity interest would be limited to 10 percent of admitted assets (25 percent for property-liability and accident/health insurers). Derivative investments would be restricted to hedging and limited income generation transactions. An insurer's board of directors also would be required to adopt a written investment plan that would govern the insurer's investment activity. Notwithstanding the provisions of the act, the insurance commissioner would be authorized to order an insurer to limit, dispose of, withdraw from, or discontinue an investment or investment practice, subject to due process requirements under administrative law. The model act also contains a "basket provision" which allows insurers to hold additional investments that exceed limitations contained in other provisions, subject to certain specified caps based on capitalization levels.

The debate over the model investment law goes to the heart of the regulatory problem faced by insurance commissioners. Severe restrictions on insurers' investments are relatively easy to enforce but lower the overall yield insurers can obtain, resulting in higher insurance prices and diminished product diversity. Alternatively, insurers could be given greater statutory leeway on the specific investments they are allowed to make with regulators authorized to take action if an insurer fails to follow a "sensible" investment strategy consistent with its business plan. This approach, coupled with stringent risk-based capital requirements, would discourage a company's owners and managers from pursuing risky investment strategies. However, the degree of precision that minimum RBC standards can achieve is questionable, and regulators' ability to monitor and evaluate insurers' investment strategies also is constrained. More-

[20] Roughly 3 percent of insurers fail to meet this requirement currently.

over, the industry is concerned about giving regulators too much discretionary authority.

Other Financial Requirements

A number of other strengthened financial requirements address abuses and regulatory gaps that arose during the 1980s. In 1989, the NAIC adopted a model law that tightened requirements for insurers to receive financial credit for ceded reinsurance. In order for the ceding insurer to receive credit, the reinsurer must be "authorized" or post security to cover its obligations, should it fail. To be authorized, a reinsurer must be licensed in at least one state and have capital and surplus of at least $20 million as well as meet other requirements. The credit that a ceding insurer receives also is reduced for uncollectible and overdue reinsurance payments. Model regulations prohibiting "surplus relief" schemes and limiting fronting arrangements were adopted by the NAIC in 1991 and 1993, respectively. Additional models were adopted that regulate the activities of reinsurance intermediaries and managing producers. A new model law adopted in 1993 addresses assumption reinsurance transactions and provides substantially broader protection for policyholders. In 1994, the statutory accounting procedures for property-liability insurers were revised to introduce special requirements regarding retroactive reinsurance agreements, which will defer gains in the ceding company's surplus that otherwise would have been immediately recognized. In 1992, the NAIC proposed federal legislation that would establish the NAIC as a vetting office for alien insurers and reinsurers. Congress has not shown much interest in this legislation, and the NAIC has explored how it might undertake certain elements of the proposal without federal action.

The states and the NAIC also have significantly boosted anti-fraud efforts by establishing fraud sections within 26 insurance departments, tracking companies and individuals of potential concern, and increasing coordination with federal law enforcement authorities.[21] States are able to access special data bases at the NAIC electronically to obtain information on regulatory actions and persons involved in questionable activities. Stringent insurance fraud provisions developed by the NAIC were enacted as part of the federal omnibus crime bill in 1994. The provisions establish tough penalties for false financial reporting, embezzlement, theft, and misappropriation of insurer funds.

Financial Reporting

A second tack taken by regulators is the enhancement of solvency monitoring activities to facilitate more timely regulatory action against troubled insurers. One of the objectives of this effort is to take "bad" companies out of circulation more quickly to lower insolvency costs. This has the advantage of focusing regulatory sanctions against insurers that attempt to "go for broke" or that are simply unlucky, incompetent, or fraudulent without imposing unnecessary restrictions on the activities of financially sound companies. Effective monitoring also increases insurers' incentives to comply with regulatory requirements and increases the cost of incurring excessive risks. In principle,

[21] See Derrig (1994) for a comprehensive bibliography on insurance fraud.

insurers support better solvency monitoring although they oppose reporting requirements that are not perceived to be cost-effective or that might give incorrect signals about an insurer's financial condition.

Financial reporting requirements have been greatly expanded in recent years to provide more detailed and accurate information to assess insurers' financial condition. Schedules dealing with reinsurance, bonds, real estate and mortgage loan investments, and loss reserves have been significantly enhanced. The NAIC has collaborated with Wall Street firms to develop a system that enables regulators to determine the relative riskiness of insurers' mortgage-backed securities. Statements of actuarial opinion (for property-liability insurers) and asset adequacy analysis (for life/health insurers) and independent CPA audit requirements also have been instituted. The codification of statutory accounting principles is another major project underway that is intended to standardize accounting rules across the states as well as provide definitions where they have been lacking.[22] The maintenance of a different set of accounting rules for insurance regulation will continue to be an issue with public accountants subject to lawsuits for erroneous opinions, but SAP codification should help to minimize and clarify the differences with GAAP.

Statutory accounting has been criticized over the years for reliance on amortized book or historical cost values rather than market values for bonds. Proponents of market valuation argue that it provides regulators, policyholders, and others with a more accurate picture of the true risk and net worth of an insurer (Cummins, Harrington, and Niehaus, 1995). It also is argued that market value accounting would improve insurer investment decisions that are distorted by historical cost accounting.[23] Regulators have tended to oppose a move to market value accounting because of concerns about the potential difficulty in estimating the market values of some securities as well as liabilities. In 1993, the Financial Accounting Standards Board adopted market value reporting requirements for bonds for purposes of GAAP financial statements. Although this has increased pressure on insurance regulators to reconsider the SAP approach, they may be reluctant to implement any changes until there is greater consensus on allowing insurers to discount liabilities to present value.

Financial Analysis and Peer Review

Since the early 1970s, the NAIC has utilized the Insurance Regulatory Information System to monitor insurers' financial condition at a national level and identify those insurers requiring further regulatory attention. Insurers' financial data are first processed through a statistical phase consisting of a series of 11 financial ratios (12 for life/health insurers) as well as a series of additional screening criteria. Companies showing unusual results are analyzed

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[22] The NAIC publishes several references that provide information on statutory reporting requirements: the Annual Statement Blanks, the Annual Statement Instructions, the Accounting Practices and Procedures Manual, and the Examiners Handbook. Separate volumes contain the annual statement and accounting practices materials for the different types of insurers.

[23] A historical cost system induces insurers to sell assets when market values are greater than book values and hold assets when market values are less than book values to improve their reported financial position (Cummins, Harrington, and Niehaus, 1995).

further by a select team of state financial examiners and financial analysts who recommend further investigation by the companies' domiciliary regulators, if necessary.[24] Insurers deemed to be "high priority" are followed up by the NAIC's Examination Oversight Task Force, which takes action if the domiciliary state fails to do so. Insurers' IRIS ratio results (and unusual value parameters and priority status) also are available to regulators over the NAIC network. Ratio results and unusual value parameters are available to the public through a published report, but an insurer's priority status is not published.

In 1990, IRIS was expanded to encompass a new solvency screening model and an analytical process to facilitate peer review of the domiciliary regulation of "nationally significant" insurers and to assist insurance departments in prioritizing their financial analysis. The objective of the NAIC's peer review process, as exercised through its Financial Analysis Working Group (FAWG), is to ensure that domiciliary regulators take effective action with respect to "nationally significant" insurers that are in financial difficulty. Currently, nationally significant insurers are deemed to be those that write business in 17 or more states and have gross premiums (direct plus assumed) written in excess of $50 million for life/health and $30 million for property-liability insurers.[25]

The NAIC's Financial Analysis Division subjects insurers' financial statements to a computerized financial analysis and surveillance tracking (FAST) routine, which prioritizes companies for further analysis. FAST consists of a series of approximately 20 financial ratios based on annual statement data, but, unlike the original IRIS ratios, it assigns different point values for different ranges of ratio results. A cumulative score derived for each insurer is used to prioritize it for further analysis. Companies are classified either as immediate, priority, or routine based on their score and specified cut-off points. The second major component of the FAST system is a set of profile reports that analyze various aspects of an insurer's financial statement over a five-year period. Analysts can use the FAST ratios or specify other screening criteria to select insurers for profile reports. They also can generate customized reports and worksheets to evaluate areas of special interest indicated by the ratio analysis and five-year profiles. Separate FAST systems exist for life, health, and property-liability insurers. FAST utilizes some IRIS ratios, but it also includes a number of other ratios and tests not encompassed in IRIS. For example, there are FAST-only property-liability variables for increases in gross premiums, the

[24] A popular myth, perpetuated in the academic literature and elsewhere, is that the "failure" of four or more IRIS ratios targets companies for further regulatory scrutiny. In actuality, 15 screening criteria are used to select property-liability insurers, and 12 criteria are used to select life/health insurers for further detailed analysis by the NAIC. These criteria are not made public but generally encompass factors such as an insurer's regulatory status in prior years, particular financial results, results for specific IRIS ratios, and other financial information. The detailed analysis then determines the insurers targeted for further regulatory attention. The NAIC publishes manuals every year, *Using the NAIC Insurance Regulatory Information System,* for the different types of insurers.

[25] In 1994, 463 life/health insurers and 642 property-liability insurers met these criteria.

ratio of short-term invested assets to surplus, negative cash flow, concentration in long-tail lines, and managing producer exposure.[26]

Although the specifications of the IRIS ratios have been public knowledge since their inception, and insurers' ratio results have been public since 1989, information about the FAST system and insurers' FAST results has not been available outside the regulatory community because of potential public misunderstanding and misuse of a company's FAST results. As with any financial screening model, the FAST results for a given company may not provide an accurate indication of its financial condition relative to other companies. Regulators can use further analysis to sort out "false positive" scores, but agents and consumers do not have that same capacity and could be misled by anomalous FAST results. The FAST monitoring system also is less subject to "gaming" by insurers if they do not have complete information about the system.

A number of states also have developed their own solvency screening systems. Some of these systems can be quite sophisticated, such as those developed by California, New York, Ohio, Pennsylvania, and Texas. State insurance department systems have served as a source of innovation and provided ideas for NAIC ratios. Wisconsin and New York, for example, implemented risk-based capital early warning mechanisms prior to their consideration by the NAIC. Departments with their own extensive warning systems tend to supplement their results with IRIS ratio and FAST ratio results. State use of NAIC monitoring systems has increased with their improvement and the establishment of accreditation standards requiring utilization of screening systems.

With respect to peer review, the Financial Analysis Working Group examines the analysis performed by the NAIC's Financial Analysis Division and identifies those insurers/states that it will subject to further study. For those insurers, FAWG queries the domiciliary state on various aspects of the insurers' financial condition and regulatory actions taken. FAWG then may close the file or continue to monitor the insurer. If FAWG determines that further measures are desirable, it will recommend the appropriate corrective action to the domiciliary state. If the domiciliary regulator fails to follow FAWG's recommendation, FAWG will alert other states accordingly and coordinate their actions against the troubled insurer.

This peer review process can apply substantial leverage on domiciliary states. It forces the decision on the appropriate degree of regulatory forbearance to consider the interests of all the states in which an insurer does business, not just the domiciliary state. Nondomiciliary states can exert pressure on the domiciliary state by threatening to restrict an insurer's ability to write business. This is a death-knell for an insurer, not only in terms of its ability to grow (or bring in cash), but also in terms of what it signals to the market about its financial condition. If nondomiciliary states restrict a troubled insurer's activities, the domiciliary regulator has little choice but to seize the company and implement the actions required by FAWG. The collective re-

[26] The NAIC is currently engaged in a joint study with researchers at the University of South Carolina and Georgia State University to test the performance of IRIS and FAST as well as other variables that might be useful in identifying troubled insurers. See Grace, Harrington, and Klein (1993) for a review of the property-liability FAST system.

sources and expertise of the various state insurance departments and the NAIC also are more efficiently coordinated and focused on a troubled insurer through this process. In most instances, FAWG has determined that domiciliary regulators have dealt with troubled companies appropriately, but there have been cases where FAWG has encouraged states to move more quickly than they might have otherwise.

More Efficient Examinations

The efficacy of insurer examinations has been called into question by insurance regulators, Congress, and the industry. In 1990, the NAIC established a Special Committee on Examinations to conduct a comprehensive review of the examination process. The committee concluded that periodic examinations should be supplemented by limited scope or targeted examinations of insurers based on well-defined selection criteria (NAIC, 1990b). It also recommended a number of measures to enhance the efficiency of examination conduct and to improve the training and qualifications of examiners. Greater emphasis on preexamination preparation, financial analysis, and risk-based examinations, which focus on particular areas of concern, is being encouraged. Subsequent to the committee's report, the NAIC revised its Examiners Handbook (NAIC, 1990a) substantially to incorporate the committee's recommendations. State examiners are now being trained in the new examination and analysis methods.

One important component of improved examination procedures is the use of automated or electronic data processing–assisted examinations. The NAIC has helped to develop automated exam systems and provides consulting support to state examiners in the preexamination and on-site phases. The NAIC's Examination Jumpstart system generates a series of analytical reports from the NAIC data base which allow the supervising examiner to pinpoint problem areas and allocate resources accordingly before going on-site. The system also performs many routine, time-consuming tasks that the examiner would otherwise perform at the company. Special audit software is used at the company to retrieve, check, and analyze information from its electronic files. The software allows the examiner to test for a particular condition for every policy or transaction. This substantially expedites the examination and allows the examiner to conduct more in-depth analysis of important areas.

Independent audit requirements also represent a significant development designed to improve the quality of financial reporting and monitoring. Annual statement instructions require all insurers to have an annual audit performed by an independent certified public accountant and file an audited financial report as a supplement to their annual statement on or before June 1 for the preceding calendar year. The required audited financial report must cover the financial position of the insurer and the results of its operations, cash flows, and changes in capital and surplus in conformity with statutory accounting principles. If the independent auditor determines that the insurer has materially misstated its financial condition, as reported to its state of domicile, or does not meet the minimum capital and surplus requirement of its domiciliary state, the auditor is required to report this finding to the insurer's board of directors. The board of directors must forward this report to the domiciliary commissioner and, if it fails to do so, then the auditor is compelled to file the report with the commissioner. The auditor also is required to notify the domiciliary commissioner

of any significant deficiencies in an insurer's internal control structure. This independent audit requirement is an important adjunct to periodic regulatory examinations that help to ensure the veracity of insurers' annual financial reporting and the effectiveness of the solvency monitoring process.

Receivership and Guaranty Fund Reforms

Concerns about the adequacy of state insurance regulation also extend to the state-based systems for administering receiverships and guarantying policyholders' funds. Issues have been raised about coverage differences between states, the capacity of the system to handle major insolvencies, and the difficulties involved in coordinating payments in multistate insolvencies. Opinions differ about whether states should be allowed some flexibility in determining the amount of coverage for their residents, but there is general support for minimum standards and improved efficiency. The NAIC has been developing a series of reforms to address acknowledged weaknesses in the current system for administering receiverships and guaranty fund coverage. These reforms include eliminating coverage gaps between states, higher coverage limits for health insurance claims, establishing minimum standards for state guaranty fund coverage and proper receivership administration, improving communication and coordination between state guaranty funds and receivers, and enhancing consumer information about guaranty funds.

More controversial areas that lack complete consensus include coverage of unallocated annuity products such as guaranteed interest contracts, policyholder access to funds held by insurers in receivership, and alternative funding schemes such as risk-based assessments.[27] Also unresolved is the mechanism by which states would be induced to meet the NAIC receivership/guaranty fund standards. Voluntary compliance, accreditation, and an interstate compact are possible options. The NAIC's Midwest Zone members have endorsed an interstate compact model limited to receiverships that is being considered by the entire NAIC. The notion of establishing a national guaranty fund/receivership system with uniform provisions across all states was rejected by the NAIC. Most regulators and many insurers believe that there are advantages in maintaining a system that requires each state to pay its own insolvency costs while giving it the ability to tailor its coverage according to the preferences and economic circumstances of its citizens.

Standards for Regulators

The growing interdependence of the states in regulating multistate insurers coupled with the varying quality of regulation among the states in the face of

[27] See Cummins (1988), Feldhaus and Barth (1992), and Bartlett (1994) for analyses of the potential merits of risk-based guaranty fund assessments. Regulators and the industry generally reject risk-based assessments because of practical problems involved in measuring the relative riskiness of different insurers. This is a more ambitious exercise than establishing minimum capital requirements necessary to forestall regulatory action. Regulators also disfavor greater use of cost-sharing mechanisms such as higher deductibles or coinsurance provisions for guaranty fund coverage because of skepticism about the ability of consumers to distinguish between high-risk and low-risk insurers.

increased insurer financial risk prompted the NAIC to develop a certification program for insurance departments. The goal of the program is to ensure that a state's solvency regulation meets certain minimum requirements so that other jurisdictions can have a high degree of confidence in the state's oversight of its domiciliary companies. The NAIC Policy Statement on Financial Regulation Standards, adopted in June 1989, establishes a comprehensive set of standards designed to consistently and effectively regulate insurers' financial condition. The standards go beyond model laws by establishing a list of legislative and administrative requirements for an effective solvency regulatory program in three areas: laws and regulations, regulatory practices and procedures, and organizational and personnel practices (NAIC, 1995b).

The standards governing laws and regulations require that states have authority to examine insurers whenever it is deemed necessary; establish risk-based capital requirements; institute NAIC financial reporting requirements; have authority to take corrective action against troubled insurers; require insurers to use Securities Valuation Office securities valuations; have laws/regulations governing risk limitation, investments, holding company transactions, liabilities, and reserves; and require CPA audits and actuarial opinions. With respect to regulatory practices, state insurance departments are required to maintain financial analysis/examination procedures and resources that will ensure timely identification of troubled insurers. Departments also must communicate with each other on troubled and failed companies. Finally, the standards require that insurance departments have an appropriate funding and organizational structure and train, supervise, and pay staff to ensure effective solvency regulation.

In order to provide guidance to the states regarding the minimum standards and an incentive to put them in place, the NAIC adopted a formal accreditation program in June 1990. Under this program, each state's insurance department is reviewed by an independent team that assesses that department's compliance with the NAIC's Financial Regulation Standards. Departments meeting the NAIC standards are publicly acknowledged, while departments not in compliance receive guidance from the NAIC on how to bring the department into compliance. Unaccredited states are pressured to become certified or risk redomestication of their domiciliary companies.

The accreditation program has significant implications for the effectiveness and efficiency of state solvency regulation of insurers. Certifying that a state's regulatory program meets certain minimum requirements provides greater assurance that oversight of its domestic insurers is adequate. This promotes efficiency by allowing each state to focus its resources on its own domiciliary insurers, which improves the quality of that regulation while avoiding duplicative analysis and examinations of insurers by nondomiciliary states. Efficiencies also are achieved by using the NAIC as an accrediting body, as it would be costly for each state to independently review and certify the regulatory quality of every other state.

The industry has been generally supportive of the accreditation program, although some insurers have lobbied against the inclusion of certain standards that they believe are overly stringent. The domestic insurers in each state are induced to support legislation bringing the state into compliance with the standards because of the tougher restrictions that they might encounter in other

states if their domiciliary jurisdiction is not accredited. Consumers are not expected to be generally aware of the accreditation program, but regulators, governors, and legislators can use the program to affirm that they are adequately protecting the public interest and promoting the competitiveness of the domestic industry. Yet the NAIC has received criticism from some state officials for imposing rapidly expanding solvency standards and usurping legislative prerogatives by dictating regulatory policy. Although this view is not widely shared by most state legislators, national standards developed by an association of state regulatory officials inevitably will create some friction. A state insurance commissioner can use the program to leverage additional legislative support for tougher laws and more resources.

The issue of whether the accreditation program should contain specific sanctions against unaccredited states has been controversial. The use of sanctions against nonaccredited states potentially increases the leverage imposed on state legislatures as well as concerns created by the exercise of that leverage. Initially, the program contained a sanction in that accredited states effectively were not allowed to accept examination reports from unaccredited states, with certain exceptions. This sanction was removed in 1994, when the NAIC determined that the acceptance of examination reports was a matter of state discretion. Some critics argue that this action weakens the program, but it is questionable whether sanctions are necessary for the accreditation program to be successful. Arguably, the effectiveness of the program can be enhanced through disseminating *information* without imposing sanctions. Providing information on how a state measures up to the accreditation standards allows other commissioners to adjust their regulation of the state's domestic companies accordingly. Consumers also can use this information to make better decisions about which insurers they purchase coverage from. This enhanced information increases incentives for good regulation without undermining state sovereignty.

The perceived limitations to the accreditation program have prompted the NAIC, the National Conference of State Insurance Legislators (NCOIL), and others to consider an interstate compact for insurance regulation. An interstate compact provides for a contractual and statutory relationship among those states who become party to it and has been used as a device to coordinate state government activities in a number of areas. Receivership and guaranty fund administration have been the main focus of NAIC and NCOIL compact proposals, but the concept might be applied more broadly to other areas of insurance regulation where interstate cooperation is important (see Jackson, 1990, 1991; Schacht and Gallanis, 1993; and Manders, Vaughan, and Myers, 1994). The appeal of an interstate compact is that it allows state legislatures to affirm their participation in and delegation of authority to the compact. However, state legislatures may not be much more enthusiastic about this approach than they are about de facto delegation to the NAIC through the accreditation program.

It is difficult to quantify the impact of the NAIC accreditation program, but evidence suggests that it has had significant effects on the infrastructure for state solvency regulation. Every state has enacted a legislative package designed to achieve compliance with the NAIC standards. As discussed below, insurance department budgets and staffing have increased at a fast pace despite state fiscal problems. Considerable anecdotal evidence indicates also that a

number of insurance departments have improved their internal procedures and increased the sophistication of their analysis tools in order to pass muster under the NAIC's accreditation program.

Accredited states now regulate a significant proportion of the industry. As of December 1994, 44 states were accredited under the NAIC standards. Based on 1993 data, 3,878 insurers were domiciled in accredited states that filed a statement with the NAIC, representing 84.8 percent of total industry net premiums written.

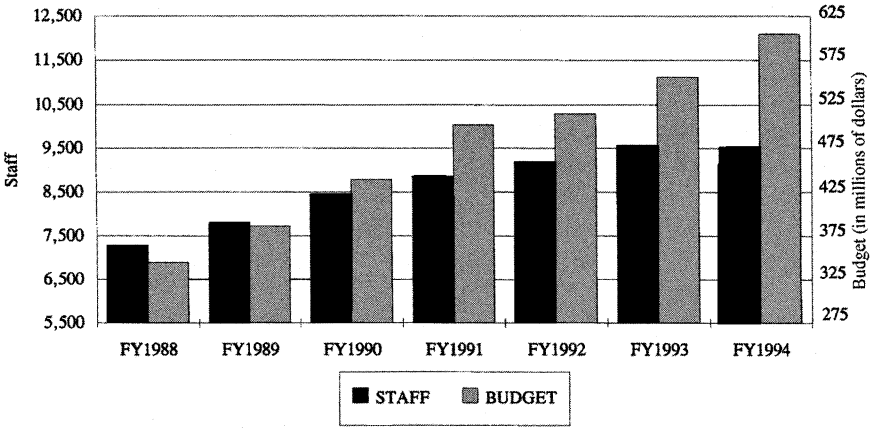
Increased Resources

Despite tight fiscal constraints, the states have significantly increased the resources devoted to insurance regulation in recent years. From fiscal year 1987 to fiscal year 1994, funding for state insurance departments increased by 92.4 percent, three times the pace of inflation over this same period (see Figure 3). The increased funding raised staffing levels, boosted salaries to attract and retain more qualified staff, and improved office automation to enhance staff productivity. Full-time equivalent department staff increased 41.4 percent over the period from 1986 through 1993, with the greatest increases in financial examiner/analyst and consumer service personnel. Departments also significantly enhanced their use of computers and upgraded their information systems, reporting 7,913 personal computers for 1993, which represents a staff-to-PC ratio of less than 1.2 to 1. The increase in staff and enhanced automation has allowed regulators to substantially enhance the quality and intensity of their financial oversight of insurers as well as expand consumer protection activities. However, the increase in resources has not been uniform—a few states have actually experienced budget and staff reductions due to more severe fiscal problems in those jurisdictions.[28] Staff growth also has begun to plateau in many departments as they come into compliance with accreditation requirements.

Greater public concern about the adequacy of insurer insolvency regulation and the NAIC's financial regulation standards and accreditation program have combined in a timely way to increase political support for stronger regulatory funding. The accreditation program has increased the incentives for the domestic industry in each state to boost political support for better regulatory funding, even if it is achieved through additional fees and assessments earmarked for regulatory enhancements. Some state insurance departments have been allowed to increase their reliance on dedicated funding as part of an effort to improve funding adequacy. Departments funded solely from general fund revenues increased their budgets by an average of 30.8 percent from fiscal year 1989 to fiscal year 1993, compared to 65.2 percent for states that received at least partial support from dedicated funds (NAIC, 1995a).

[28] Some departments have reduced staff by privatizing certain regulatory support services such as receiverships.

Figure 3
State Insurance Department Staff
and Budget Trends, 1988 Through 1994



Source: National Association of Insurance Commissioners.

Improving Market Efficiency

Dealing with 55 different market regulatory requirements in the various states and territories is very costly for multistate insurers and agents. Although individual states may be satisfied with their market regulations, regulators have an incentive to support measures that increase efficiency and lower costs to consumers. State officials also have an interest in maintaining industry political support for state regulation. Consequently, state insurance regulators and the NAIC have embarked on major initiatives to improve the efficiency of producer licensing and the rates and forms filing process as well as explore other means to "harmonize" regulation among the states. A special NAIC working group on regulatory efficiency has been established to conduct this investigation. These initiatives are intended to make it easier for agents and insurers to operate on a multistate basis while preserving individual state regulatory authority.

Currently, agents must apply for a license in every state in which they do business. This is costly and time consuming for multistate agents and also requires individual insurance departments to engage in duplicative processing and validation of the same information. Although control over an agent's license is important in policing illegal trade practices, the state licensing process imposes barriers to entry, which impedes competition between agents in providing better services at lower cost. The objective of the producer licensing initiative is to preserve individual states' agent licensing authority while improving the efficiency of the licensing process to reduce costs for insurance departments as well as agents. The project entails the development of an extensive central data base on all licensed producers in the country that will be

maintained by the NAIC. Insurance departments will be able to access the data base electronically and expedite the background check that is a time-intensive part of the licensing process. Insurers also will be able to access this information in helping them make decisions about agent appointments. The system may ultimately provide a standardized process by which an agent can apply for a license in various states at the same time, subject to individual state approval.

A second initiative addresses another major source of inefficiency, the rates and forms filing process. The objective is to transform a very paper-bound activity into a process that will be conducted, for the most part, electronically. Insurers will use a national computer network to transmit rates and forms filings electronically to insurance departments. Regulators will have computer hardware and software to receive, store, track, and assist in the analysis of filings. Regulators and insurers will be able to communicate on filings over the computer network. This new system, which is expected to be implemented by 1996, should significantly reduce the time and expense involved in submitting and reviewing filings for both regulators and insurers. It also will provide states with substantial incentives to rationalize and standardize the filing approval process in order to take full advantage of the technology being developed by the NAIC. A related initiative is underway to develop a strategic plan for property-liability statistical reporting that will efficiently serve regulatory, industry, and public information needs.

Consumer Protection

The NAIC and the individual states have strengthened consumer protections in a number of areas to respond to specific market abuses that arose or intensified during the 1980s. Regulation has been tightened in areas such as policy terminations, assumption reinsurance, health insurance rating and underwriting, claims settlement practices, and credit insurance. Another issue that has received renewed attention is insurance availability and affordability in urban areas. The NAIC established a special task force to examine this issue after the 1992 Los Angeles riots renewed allegations that insurers are redlining against inner-city and minority communities. Concerns about fair access to insurance are confronting established industry business practices in underwriting selection and pricing. Urban activists advocate restricting geographic rate differentials, prohibiting use of underwriting criteria such as age and minimum value restrictions for homeowners insurance, and forcing insurers to appoint agents and offer replacement cost homeowners coverage in inner-city neighborhoods. The NAIC and a number of states have compiled ZIP code data and are conducting an extensive study of conditions in urban insurance markets. Preliminary analysis of these data supports concerns about high prices and diminished availability of homeowners insurance in poor, minority neighborhoods (Klein, 1994). A variety of factors could explain adverse market conditions in the inner-city, including high costs due to poor quality housing and higher crime rates. The NAIC task force has recommended a continuum of policy options to address urban insurance problems, from measures that rely primarily on

market forces to greater regulatory intervention if market forces fail to work. Policies that reduce loss costs and barriers to entry to urban markets, particularly high information costs for insurers, may have the most potential to improve conditions in these markets.

The states have been very active in the area of health care reform. Rapidly rising health care costs have induced insurers to move away from a broad pooling of risks. Instead, some insurers have lowered rates for younger, healthier groups and increased rates for rejected older, less healthy groups. Some employers and individuals are unable to find or afford health coverage because of poor health or claims experience. State reforms focus on restricting insurers' ability to deny coverage, constraining rate differentials, and requiring guaranteed renewability and portability of coverage. Underwriting restrictions include prohibiting the denial of coverage on the basis of the claims history or health status of employees and their families. Pricing restrictions range from requiring pure community rating to imposing limits on the amount that premiums may differ due to claims experience, health status, or duration of coverage. The NAIC Small Employer Health Insurance Availability Model Act provides either a prospective reinsurance mechanism or an allocation mechanism to mitigate the possible adverse selection problems created by these underwriting and rating restrictions. A number of states also have enacted legislation creating health care purchasing alliances. The states are starting to move from an entity-based (i.e., traditional health insurers, HMOs, etc.) to a function-based regulatory approach, reflecting changes in the structure of the market.

The market conduct of life insurers has received increasing regulatory scrutiny as severe abuses have been uncovered in agents' sales practices. Metropolitan Life received regulatory fines of $20 million when its agents were found guilty of misrepresenting a life insurance product as a retirement or savings plan. These kinds of abuses are not surprising given the complex array of investment-oriented products offered by life insurers that are beyond the comprehension of many consumers. An NAIC working group has wrestled with how to regulate life insurance sales illustrations so that buyers can reasonably compare policies. A fundamental question in its deliberations has been the appropriate balance between the insurers' need for flexibility in presenting their particular policy designs against the consumers' need for a comprehensible and accurate illustration. In devising solutions for this issue, the working group is relying heavily on the actuarial profession to exercise appropriate professional discipline in computing the policy values shown in illustrations.

Conclusion

The 140-year-old framework of state insurance regulation is under severe challenge. Dramatic structural changes in the industry have taxed state regulators' ability to maintain adequate oversight of insurers' solvency and market practices. The states, individually and collectively through the NAIC, have undertaken a massive rebuilding effort to restore public confidence in the insurance regulatory framework.

The acid test for the long-term survival of any institution is its ability to adapt to changed circumstances. Only time will tell whether state insurance regulation will meet this test, but the states can be credited for undertaking significant reforms. A key question is how much the individual states will accede to their collective interest in coordinated and stringent regulation. If political resistance to minimum regulatory standards mounts as those standards are strengthened to address identified problems, further doubts may arise about the states' capacity to regulate insurance. An interstate compact may offer some promise as an alternative mechanism to achieve greater cooperation and uniformity among states in regulating insurers, but it cannot avoid the inherent tension between the states' mutual interests and their individual sovereignty.

State insurance regulators face other challenges in maintaining proper oversight of insurance markets. Greater integration of financial services increases competition and requires more coordination among the regulators of these different sectors. Insurance regulators must find ways to facilitate the extensive restructuring of the industry that will occur because of competitive pressures and economic changes. The allocation of costs among different groups through insurance financing mechanisms will continue to be a contentious political issue. Threats imposed by natural and man-made catastrophes may necessitate national solutions that will bring greater federal involvement in insurance. Indeed, even if the federal government continues to delegate insurance regulation to the states for the foreseeable future, the federal role in establishing public policy for insurance could increase. The recent Republican takeover of Congress would not prevent federal intervention if major solvency problems were to reemerge or if industry interests favored intervention to preempt state restrictions. If federal involvement in insurance increases it will be important for state and federal authorities to be appropriately structured and coordinated so that public policy goals can be achieved. Otherwise, the insurance industry's performance will decline with adverse consequences for the economy as a whole. These issues provide fertile ground for researchers to study and recommend regulatory structures and policies that will promote economic efficiency.

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