

Regulating Insurer Solvency In a Brave New World*

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Abstract

This paper provides an institutional overview of insurance solvency regulation in the U.S. to assist researchers evaluating its impact, effectiveness and reform. It updates previous overviews of insurance regulation by the author in the context of emerging issues associated with the convergence of financial services markets (Klein, 1995). Insurance is primarily regulated by the states but this scheme is being reconsidered again as the regulatory barriers between competing financial institutions fall. Insurers are increasingly concerned about the inefficiencies associated with state regulation in a national and global financial economy greased by rapid advances in communication technology. At the very least, the states will need to restructure and coordinate their regulatory activities to eliminate unnecessary impediments to interstate transactions. Whether their initiatives will prove sufficient to delay the movement towards a federal regulatory scheme is uncertain. Regardless, the regulatory system for insurance must adjust to economic realities. This paper discusses the current state of insurer solvency regulation and how it may change in the brave new world of integrated financial markets.

I. Introduction

Insurance regulation in the U.S. has progressed through several evolutionary phases in its almost two-century history. As insurance markets have evolved in a dynamic economy, so has their regulation progressed in an attempt to maintain consumer protections and permit market innovations. Like other financial institutions with significant fiduciary responsibilities, insurance companies have been subject to intensive solvency regulation. However, insurance regulation does not end there and has encompassed prices, products and trade practices, which interact with solvency regulation. Insurance has been characterized as an industry “vested with the public interest” and this is evidenced by extensive government intervention in insurance market, motivated by social and political forces as well as market imperfections.

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The convergence of financial markets and the enactment of the Graham-Leach-Bliley Act (GLBA) in 1999 is ushering in another phase in the evolution of insurance markets and their regulation. GLBA significantly eased Depression-era financial regulations (the Glass-Steagall Act of 1933) that hampered the ability of banks and other financial institutions to provide a full range of financial services that crossed artificial organizational barriers. The new law permits financial services companies to merge and engage in new business activities and the cross selling of financial services and products, while attempting to address the regulatory issues raised by such combinations. Insurance and non-insurance financial entities are developing and implementing various strategies in reallocating capital and serving consumers in an environment where an array of financial products compete as substitutes or are marketed as complements.

The NAIC supported GLBA with the proviso that it would preserve state insurance regulation and protect consumer privacy. GLBA contemplates a system of “functional regulation” in which several government authorities regulate the respective activities of financial institutions. Banking, securities and insurance regulators are wrestling with how to enforce this new regulatory scheme and coordinate their responsibilities. Increased global trade in financial services, innovations in financial instruments, and rapidly advancing information technology add further dimensions to this task. Consequently, the paradigm for insurance regulation is being reconsidered in a brave new world of integrated financial markets.

It is important for scholars, experts and officials from the various disciplines and segments of the financial services industry to engage in an informed discussion about insurance regulation and how it fits in the overall system of financial institution oversight. Unfortunately, insurance regulation can appear arcane and even mysterious to those who do not make it a primary occupation. The purpose of this paper is to describe and explain the infrastructure for insurance solvency regulation to help inform explorers as well as curious observers. Emerging issues and regulatory approaches also are discussed in considering the future direction of government oversight of insurance.

The paper begins with laying the conceptual foundation for insurance regulation as basis for evaluating its strengths and flaws. This is followed by a review of the institutional infrastructure that underpins insurance. Section IV gets to the heart of the matter by explaining the states’ activities in regulating insurer solvency and identifying the issues they raise. Regulatory institutions and policies are considered in terms of the

changes needed to adjust to market trends. I conclude by speculating on the political prospects for insurance regulatory reform.

II. A Conceptual Framework

A. The Structure of the Insurance Industry

We begin with a brief review of the structure of the insurance industry and how it is changing to set the context for its regulation. Tables II.1 and II.2 provide summary statistics on trends in the property-casualty and life-health insurance segments of the industry. Both sectors have experienced significant growth in revenues and assets, coupled with a decline in the number of insurance companies. Despite competition from other financial products, the insurance industry has continued to grow in absolute and relative terms. This may be due, in part, to increased consumer demand for insurance products driven by rising household incomes.

The property-casualty sector has seen its leverage (net premiums/surplus) decline from a high of 210.2 percent in 1970 to a low of 84.5 percent in 1998. This has led to growing concerns about “excess” capital in the industry and discussion about capital allocation strategies. Fierce competition is driving consolidation within the industry. As the number of property-casualty insurance companies has declined, the share of net premiums written by the top 10 groups has increased. However, we have yet to see this

translate into market power that would enable these insurers to dominate the industry in a way that would thwart competition.

In the life-health sector, market growth has been accompanied by a significant shift in the types of products purchased. The increasing demand for retirement related products has transformed the industry. In 1960, life insurance constituted 71.9 percent of industry policy reserves, while annuities accounted for most of the remainder. The situation is now reversed with annuities constituting 69 percent of policy reserves. Further, whole life insurance policies have significantly declined in favor of term life and universal life policies (ACLI, 1999).

On an aggregate basis, both sectors appear to be relatively strong in terms of capital levels and leverage indicators. This also is reflected in the sharp decline in the number of insurer failures the mid-1990s (see Figure II.1). In the late 1980s and early 1990s, the total number of insurer failures hovered around 100, but declined to almost single digits by 1996. It does not appear from these data that the insurance industry currently suffers from any obvious financial weakness that poses an immediate threat to solvency. However, industry restructuring, the need to improve efficiency, and the ever present risk of a major economic shock, create long-term issues for many insurers. Regulators will need to distinguish thriving insurers from companies with a questionable future with appropriate policies for both to facilitate industry consolidation with minimal insolvency cost.

B. A Rationale for Solvency Regulation

While this paper approaches insurance solvency regulation from an institutional perspective, it is helpful to outline its conceptual framework and the factors that influence regulatory policy. The economic rationale for regulating insurer solvency arises from market failures 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 result from insolvency. It is costly for consumers to properly assess an insurer's financial strength in relation to its prices and quality of service. Principal-agent conflicts also exist in that insurers can increase their risk after policyholders have purchased a policy and paid premiums.

The moral hazard associated with these conditions is exacerbated by insolvency guarantees (in the U.S.) that further reduce buyers' incentives to monitor and consider the financial strength of insurers. In theory, solvency regulation should limit the degree of insolvency risk in accordance with society's preference for safety. Regulators may limit insolvency risk by requiring insurers to maintain a minimum amount of capital and meet other financial requirements.

Insurance regulators must balance various goals in maximizing social welfare.¹ Regulation affects the range of possible values of the risk-return tradeoff involved with insurance transactions. Greater flexibility with respect to solvency requirements allows insurers to offer a wider range of possible product/price options and allows consumers to

¹For example, Pentikäinen (1988) discusses the need for a "reasonable balance" in determining the appropriate regulatory solvency margin between the aim of protecting the beneficiaries and the aim of avoiding excessive capital or other requirements that would unduly hamper the effective functioning of insurers.

incur greater risk in return for lower prices and/or higher benefits. Tighter solvency standards will tend to reduce the supply of insurance and increase its price. In turn, restrictions on insurers' prices and market practices can impair solvency. Policymakers and regulators must ultimately determine the boundaries governing firm and consumer choices in promoting the public interest.

This implies a tension between solvency and other regulatory objectives such as affordable prices and wide availability of coverage. If regulators possessed perfect information and an unadulterated commitment to a reasonable interpretation of the public interest, they would be expected to optimize the tradeoffs between solvency and other regulatory objectives. However, reality intervenes. The tension between regulatory objectives is influenced by voters' difficulty in understanding the relationship between solvency and price regulation. Further, the fracturing of an insurer's regulation among multiple jurisdictions can lead to externalities that further distort regulatory policies.

In the real world, insurance regulators are not omnipotent, omniscient, nor purely altruistic. They face informational and logistical constraints that compromise their ability to affect market outcomes. Insurance is a complex product with many different parameters that insurers can adjust in response to regulatory restrictions. It is difficult for regulators to control certain aspects of insurers' behavior without causing unintended effects in other areas. Hence, there is no guarantee that well-motivated regulators can necessarily improve market performance. Moreover, the economic and political environment in which insurance is regulated may affect policy in ways that do not serve the public interest in the long run. Insurance regulation is not unique in this sense, but it

arguably more vulnerable to public misperceptions and interest group pressures than most other regulated industries.

C. Factors Influencing Regulatory Policy

The economics and political science literature provides abundant theories about how various factors influence regulation in ways that conflict with the public interest. Political scientists began to question the public interest theory of regulation in the 1950s when they observed various industries such as trucking and railroads where regulatory policy seemed to work against rather than for consumers. *Capture theory* postulates that regulation is initiated or acquired by the regulated industry to serve its own interests rather than the public interest (Bernstein, 1955; Kolko, 1965). Stigler (1971) and Jordan (1972) extended this view in developing an *economic theory of regulation* in which the concentrated interests of firms tend to prevail over the diffused interests of consumers in the transfer of wealth through regulation. Peltzman (1976) generalized Stigler's model to allow for the regulatory bias between consumers and firms to vary depending upon market conditions. Political scientists such as Meier (1985, 1988) have since reclaimed some of the intellectual initiative in forwarding multidimensional theories of regulation. In their world, economics, politics, bureaucracy and ideology interact to influence regulatory policy in various directions depending on the circumstances surrounding a particular industry and even a specific issue.

One interesting implication of this thread of work is that regulators' notions of the "public interest" may play a role in shaping policy, although not necessarily an exclusive or dominant role. Specifically, some scholars have explored the mechanism by which

voters' preferences are transformed into policy and allow explicitly for ideological or "other-regarding" preferences of public officials to affect policy (see Levine and Forrence, 1990; Kalt and Zupan, 1984, 1990).

D. Implications for Insurance Solvency Regulation

Insurance regulation in the U.S. has provided a rich environment to refine and test theories of regulatory behavior. This research has been concentrated on price regulation, but the multiple and interconnected aspects of insurance regulation offer a much wider field of exploration. Meier (1988), for example, applies his multidimensional construct of regulatory behavior to insurance. His model encompasses a number of determinants, including the relative strength of producer and consumer interests, regulators' norms and resources, political leadership, the courts and the saliency and complexity of regulatory issues.

Meier hypothesizes that the insurance industry should favor regulatory policies that benefit it and oppose policies that restrict it. He 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, or any segment of it, to influence regulation is hypothesized to be a function of its political resources, i.e., 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 support policies consistent with their policy goals, i.e., 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 exception of certain issues like auto insurance rates and managed care in health insurance. This favors 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.

Two important observations are offered here to further enrich this conceptualization of insurance regulation. The first is that the question of how alternative policies might affect the public interest or market efficiency is relevant to analyzing regulatory motivations and outcomes. Politicians have incentives to adopt policies that increase economic efficiency. Regulators and legislators 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, well-organized special-interest groups that would be affected adversely by such policies may thwart efficiency increasing regulatory policies.

The second observation is that, to the extent that both sellers and buyers of insurance act in their private self-interest, they should favor policies which will transfer wealth to them and oppose regulatory restrictions that will constrain their ability to maximize their respective objective functions. Presumably, insurers will be willing to trade some limits

on their activities to the extent that they are more than offset by wealth transfers that will increase profits. Similarly, consumers may be willing to accept less product diversity in return for lower regulated prices. Of course, on any given issue, the interests and ideologies of different consumers can diverge just as those of insurers and agents can.

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 to their interests 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 trying to court. The popular media also may distort certain insurance issues in order to increase reader/viewer interest and support.

These observations suggest some modifications to Meier's predictions about regulatory policies and their outcomes in insurance, including solvency regulation. The determination of industry positions on regulatory policies is complex because some regulations may promote a given insurer's economic interests while other regulations may not. Companies are expected to generally oppose regulatory standards that will

restrict their own actions but may support standards that will restrict the actions of their competitors.

It is in the industry's interest to support effective solvency regulation within certain bounds. Insurers' incentives to do so are: 1) the potential loss of profits to high-risk insurers that underprice their product; 2) the potential loss of profits due to diminished consumer confidence in insurers generally because of insolvencies; and 3) the burden of unreimbursed guaranty fund assessments for insolvencies. Financially strong insurers with substantial incentives to limit their insolvency risk should favor solvency regulations that limit the ability of other insurers to pursue high-risk strategies. For example, strong companies would be expected to support minimum risk-based capital standards that they will exceed but that will force regulatory action against weakly capitalized insurers. On the other hand, insurers will fight standards that will significantly restrict their flexibility, e.g., tight constraints on investments or dividend payments to stockholders. Strong companies should support more resources for solvency monitoring because those resources are presumed to help identify and prompt regulatory action against high-risk and failing companies. However, insurers will oppose giving regulators carte-blanche authority to take companies out of the marketplace arbitrarily without some legal grounds for action.

Consumers' interests also will be affected differently by insurance regulation. Consumers would be expected generally to favor stronger protections against insolvency (e.g., more generous guaranty fund coverages subsidized by taxpayers, higher capital requirements, etc.) as long as they do not unduly raise prices or greatly restrict their

choices of insurers or products.² However, consumers and voters also may express preferences for restrictions on insurers' pricing and underwriting restrictions, and mandated benefits, which may have negative effects on the supply of insurance and insurer solvency. The relationship between these regulatory practices and market results is difficult for the average consumer/voter to understand and, hence, regulators may be pressured to adopt policies with conflicting objectives and suboptimal outcomes.

III. The Infrastructure for Solvency Regulation

A. The Role and Authority of State Insurance Regulators

In contrast with other financial industries, insurance is primarily regulated at the state level.³ Every state and U.S. territory has a chief government official who is responsible for regulating insurance companies and markets. This official has the authority and responsibility to ensure that insurance companies do not incur excessive insolvency risk, nor treat policyholders unfairly. More specifically, insurance commissioners regulate insurers': admission or licensing; solvency and investments; reinsurance activity;

² For example, media accounts of the increase in insurer insolvencies motivated greater public pressure for stronger solvency regulation. Consumers' concerns about insurer insolvencies may have dissipated, which could tip the balance towards greater political pressure for restrictions on prices and trade practices.

³ This situation is a historical artifact that has endured because of strong political pressures from the states and the industry and federal reluctance to assume major new regulatory responsibilities. However, the federal government does have a substantial role in insurance regulation and intervenes in insurance markets in a number of ways. The issue of state versus federal regulation of insurance continues to be debated and this debate has been intensified by developments in financial markets and large insurers' reconsideration of their position on federal regulation. See Klein (1995) for a brief history and Kimball and Heaney (1995) for a more extensive discussion of the state and federal roles in insurance regulation.

transactions among affiliates; prices; underwriting; claims handling; and other market practices. Regulators also oversee producer licensing and market practices, along with certain other areas related to insurance company and market functions. Figure III.1 diagrams the most prominent regulatory functions and their organization within a typical state insurance department.⁴

Most commissioners are appointed by the governor (or by a regulatory commission) for a set term or “at will”, subject to legislative confirmation. Twelve states and one territory elect their insurance commissioners who are autonomous in the sense that they do not take orders from the governor but they must still cooperate with the administration in order to achieve their objectives. Elected commissioners directly seek voters’ political support, while appointed commissioners do this indirectly as part of the governor’s administration.

Commissioners can exert considerable influence over insurers’ structure and conduct through the admission and licensing process. Insurers who fail to comply with regulatory requirements may not obtain or are subject to losing their authorization to sell insurance through the suspension or revocation of their license or certificate of authority. Certain financial transactions and organizational changes also are subject to regulatory approval. Commissioners may intervene and seize companies that are deemed to be in hazardous financial condition. These measures give regulators substantial leverage in compelling insurers to comply with insurance laws and regulations. Further, insurance

⁴ The picture in Figure III.1 is a very broad generalization. It is most common for insurance departments to divide financial and market regulatory functions organizationally, but this is not always the case. Yet, the typical division of these areas has tended to impede their coordination, a problem that regulators are seeking to fix.

commissioners can exercise public and political influence in their visible role as consumer protectors and insurance experts.

At the same time, insurance commissioners are not autonomous and face a number of constraints in exercising their authority. Regulators operate within a broader governmental framework that influences and limits their actions. Most importantly, regulators must act within the framework of insurance laws enacted by the legislature. Regulations promulgated by the commissioner are subject to review and approval by the legislature in some states. Regulatory actions are also subject to review and enforcement by the courts. Hence, insurance regulatory policy is a product of all three major branches of government at both the state and federal levels.

Further, information and resource constraints and the difficulties of supervising companies operating in multiple jurisdictions have caused states to defer primary solvency regulatory authority to the domiciliary commissioner (i.e., the commissioner in the state where an insurer is domiciled or incorporated). A non-domiciliary regulator can pressure out-state insurers by denying access to his state's market and other sanctions, but these are blunt tools and asymmetric information can hamper their effective use.⁵ Externalities also are present in that regulatory policies in one state can affect insurer solvency and market outcomes in another state.

Indeed, the fact that an insurance company must apply for admission and obtain regulatory approval for its products and prices in each state increases costs for multi-state insurers and transactions. Differing state laws and procedures exacerbate these costs. Insurers' tolerance of the direct and indirect costs of state regulation has been taxed as

⁵ The high degree of interdependence among states in regulating multi-state insurers is caused by the significant amount of business written in each state by non-domestic companies (see Klein, 1999).

interstate commerce in insurance and other financial services has increased. The states have made some efforts toward greater coordination, “harmonization” and streamlining of this Balkanized regulatory structure, but these efforts have fallen short of insurers’ demands for regulatory reforms. Consequently, industry support for state insurance regulation continues to erode. The NAIC has embarked on a new set of initiatives (discussed in Section V) to respond to GLBA. It remains to be seen whether the realization of these initiatives will deter the growing pressure for federal regulation.

B. Principal Insurance Regulatory Responsibilities

Insurance regulatory responsibilities can be divided into two primary categories: 1) solvency or financial regulation; and 2) market regulation. In theory, 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 U.S. also are subject to the solvency regulation of their domiciliary state.⁶ Some U.S. and non-U.S. insurers write certain

⁶ With the exception of solvency oversight by their domiciliary jurisdiction, reinsurers are not generally subject to direct financial and market regulation. Reinsurers are, however, regulated indirectly through the states’ regulation of the primary insurers that cede risk to reinsurers. Regulators control whether a ceding

specialty and high-risk coverages on a non-admitted basis that are not subject to price and product regulation. These are coverages that tend to be purchased by commercial insureds and not sold by licensed insurers (e.g., high-risk liability coverages). Other alternative market mechanisms such as risk retention groups and captive insurance companies are subject to some regulation in their state of domicile, although it tends to be less intensive than that for traditional licensed insurers.

Insurance producers or intermediaries (i.e., agents and brokers) also are subject to state regulation. Producers must be licensed to sell insurance in each state and must comply with various laws and regulations governing their activities. State laws require most insurance transactions to be conducted by licensed producers. Regulators monitor producers' compliance with regulatory requirements and can rescind or suspend a producer's license or exact fines if the producer fails to comply. Multi-state intermediaries also incur extra costs because of this state-based regulatory system, prompting efforts to facilitate multi-state licensing which have yet to satisfy the industry.

Regulation also affects international trade in insurance. The sale of insurance to individuals and small businesses by non-U.S. insurers is the most restricted. Historically, non-U.S. insurers have been encouraged to establish U.S. branches or buy U.S. companies for these markets. Large commercial buyers face fewer impediments to purchasing insurance overseas. Still, non-U.S. insurers complain about the regulatory barriers that must be scaled in each state to broaden their market penetration. This will continue to be an issue as international trade agreements are implemented. U.S. insurers

insurer can claim credit for reinsurance on its balance sheet, which is conditioned on whether the reinsurer meets certain financial and/or trust requirements.

also complain that their regulation by the states compromises their ability to compete internationally.

C. Regulatory Resources

The adequacy of state insurance department resources has been a subject of considerable discussion at least since the late 1980s. Members of Congress and the General Accounting Office (GAO) expressed concerns that the states lacked sufficient experienced staff to effectively police the industry. These concerns receded somewhat when the states significantly increased the funding of insurance departments, but funding and staffing issues are likely to be revisited in the new environment for financial services. The attention to the number of staff and the amount of funding is understandable, yet somewhat misdirected. Arguably, how staff is used is just as important as their number.

The size of insurance departments varies significantly depending on the size of their markets and other factors. In 1998, the number of state insurance department personnel ranged from 25 in South Dakota and Wyoming to 1,118 in California (see Table III.1).⁷ The insurance departments in the four U.S. territories have smaller staffs than the states. Total full-time equivalent staff for all departments combined amounted to 10,368, in addition to 2,157 contract staff. Insurance department staff includes actuaries, financial examiners and analysts, rates and forms analysts, market conduct examiners, consumer service personnel, attorneys, fraud investigators, and systems analysts. In 1998, there were 1,691 department/contract financial examiners and analysts and 303

⁷ Unless indicated otherwise, figures on state insurance departments were obtained from the NAIC's *Insurance Department Resources Report 1998*.

department/contract actuaries. The ratio of financial and actuarial personnel to insurance companies is roughly 1 to 3.

For fiscal year 2000, state department budgets ranged from \$1.3 million in South Dakota to \$129.9 million in California, with a total combined budget for all departments of approximately \$852.7 million. The size and budget of state insurance departments tend to vary with the volume of business that they regulate, although there is not a perfect correlation. States that have more domiciliary companies, that regulate more intensively, or that provide special services (e.g., in-house liquidators) tend to have larger staffs and budgets. Public and legislative support for insurance regulation also affects department resources. Smaller states can be at a disadvantage in performing certain regulatory functions.

As noted above, the states have significantly increased the resources devoted to insurance regulation in recent years. From fiscal year 1988 to fiscal year 2000, funding for state insurance departments has more than doubled, which is three times the pace of inflation over this same period (see Figure III.2). The increased funding has been used primarily to raise staffing levels, boost salaries to attract and retain more qualified staff, and improve office automation to enhance staff productivity. Full-time equivalent department staff has increased 31 percent over the period 1988-1998, with the greatest increases in financial examiner/analyst and consumer service personnel. Departments also have significantly enhanced their use of computers and upgraded their information systems. The increase in staff and enhanced automation has allowed regulators to substantially boost the quality and intensity of their financial oversight of insurers as well as expand consumer protection activities. Reallocation of staff from unnecessary market

regulatory functions (e.g., prior approval of rates) to more critical financial oversight functions could further contribute to effective regulation.

D. The National Association of Insurance Commissioners (NAIC)

Role and Structure

The states have used the National Association of State Insurance Commissioners (NAIC) to coordinate their regulation of this diverse national and international industry.⁸ The NAIC is a private, non-profit 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 multi-state companies within a state regulatory framework, with special emphasis on insurers' financial condition. It expanded its activities to include market regulatory issues as these issues became more prominent. The NAIC functions both in an advisory capacity, as well as a service provider for state insurance departments.

Some critics of state insurance regulation have pointed out that the NAIC is a voluntary organization and cannot compel states to adopt its model laws or take any other action for that matter. Other critics argue that the NAIC operates as a quasi-governmental entity that exercises too much influence. The reality is that the NAIC is the states acting collectively to protect consumers. In other words, the NAIC simply provides a vehicle by which the individual states can coordinate the exercise of their specific regulatory authorities.

⁸ The NAIC website, at www.naic.org, is a valuable source of information on regulation and also provides a link to the website for each state insurance department.

Commissioners use the NAIC to pool resources, discuss issues of common concern, and align their oversight of the industry. Collective action can enhance as well as constrain the power of individual states. The credence given to NAIC policy positions and its ability to organize its members are substantial levers that help to standardize insurance regulatory policy across the country where standardization is deemed to be beneficial. The NAIC develops model legislation and coordinates regulatory policy through a system of committees, task forces and working groups that functions much like a legislature. The NAIC also works with the federal government and other organizations of state officials, such as the National Conference of State Insurance Legislators (NCOIL).⁹ For example, the NAIC played a major role in representing state insurance regulators in the negotiation of GLBA and is leading state efforts in responding to the legislation. At the same time, given its voluntary nature, the NAIC is relatively circumspect with regards to when and how it uses its levers. Ultimately, each state determines what actions it will take as only the states have the regulatory authority to govern insurers and insurance markets.

The future role of the NAIC will be a major topic of discussion in the coming years. Given the disparate views on the desirability of federal insurance regulation, many will look to the NAIC to help overcome some of the perceived deficiencies of state regulation. Historically, many states and insurers have been reluctant to imbue the NAIC with any formal regulatory authority. However, they may view this as a preferable alternative to federal regulation. On the other side, groups interested in greater national uniformity may be willing to accept an empowered NAIC as a first or second best option.

⁹ Interactions between the NAIC and NCOIL are particularly important in achieving consensus on legislation that must be enacted at the state level.

Services to Insurance Departments

State regulators are able to achieve considerable efficiencies by pooling resources through the centralized facilities provided by the NAIC. This is a point that is often missed by those who focus on the diseconomies of state regulation. 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 insurers. 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 has a staff of approximately 350 and an annual budget of approximately \$40 million. Almost half of NAIC revenues come from fees paid by insurers with most of the remainder coming from the sale of database products, publications and meeting registration fees. Insurance departments also pay member fees to the NAIC proportionate to the premiums written in their jurisdictions.

The NAIC supports state regulatory efforts in a number of ways, including:

- maintaining an extensive insurance database and computer network linking all insurance departments;
- analyzing and informing regulators as to the financial condition of insurance companies;
- coordinating examinations and regulatory actions with respect to troubled companies;
- establishing and certifying states' compliance with minimum financial regulation standards;
- providing financial, reinsurance, actuarial, legal, computer and economic expertise to insurance departments;
- assigning credit quality designations and valuing securities held by insurers;

- analyzing and listing non-admitted alien insurers;
- developing uniform statutory financial statements and accounting rules for insurers;
- conducting education and training programs for insurance department staff;
- developing model laws and coordinating regulatory policy on significant insurance issues; and
- conducting research and providing information on insurance and its regulation to state and federal officials and the general public.

The NAIC financial database serves as the core of the solvency surveillance and other analysis activities of state insurance regulators and the NAIC. State regulators and NAIC staff access the financial database through a variety of application systems. Increasingly, state insurance departments have relied on the NAIC as their primary financial data source, avoiding the cost of duplicative data entry systems. In addition, the insurance database is available to non-regulators.

Two adjunct offices within the NAIC perform important services related to solvency regulation. The NAIC's Securities Valuation Office (SVO), based in New York City, determines uniform accounting values and credit quality designations of insurers' investments which include government, municipal, corporate bonds, and structured bonds and common and preferred stocks. A separate rating organization for insurer securities was established because many of them are private placements that were not rated by the public rating agencies when the SVO was created in the early 1900s.

The International Insurers Department (formerly titled the Non-Admitted Insurers Information Office) maintains a Quarterly Listing of Alien Insurers that states may utilize to determine surplus lines carriers eligible or approved to operate in their jurisdiction. To

qualify for the listing, an alien company must submit financial information, pass a financial and operational review, meet certain capital and surplus requirements, and establish a U.S. trust fund.

E. The Federal Government

Tension between the federal government and the states over the regulation of insurance dates back to the mid-1800s (see Kimball and Heaney, 1995).¹⁰ This tension is created by the interstate operation of many insurers and their significant presence in the economy. On numerous occasions, the federal government has sought to exert greater control over the industry and the states have fought back aggressively to hold on to their authority. The primacy of the states' authority over insurance was essentially affirmed in various court decisions until the *Southeastern Underwriters* case in 1944. In that case, the U.S. Supreme Court ruled that the commerce clause of the U.S. Constitution did apply to insurance and that the industry was subject to federal antitrust law. This decision prompted the states to support the enactment of the McCarran-Ferguson Act in 1945 that delegated regulation of insurance to the states, except in instances where federal law specifically supersedes state law.

The federal government has affected state insurance regulatory policy and institutions in a number of ways. In several instances, Congress has instituted federal control over certain insurance markets or aspects of insurers' operations that were previously delegated to the states. In other cases, the federal government has established insurance programs, which are essentially exempt from state regulatory oversight. Even the threat

¹⁰ See also Meier (1988) and Advisory Commission on Intergovernmental Relations (1992) for a review of various attempted federal interventions into insurance regulation.

of such interventions has spurred the states to take actions to forestall an erosion of their regulatory authority.¹¹

In a few instances, the federal government has set regulatory standards, which the states are expected to enforce (e.g., health insurance and Medicare Supplement Insurance). In the GLBA legislation, the Congress provides for a national licensing system for insurance intermediaries. The legislation permits the NAIC and the states to develop this system, but if they fail to do so then an industry self-regulatory organization will be used akin to NARAB. Additionally, Congress has significantly constrained state regulatory control over certain types of insurance entities, such as risk retention groups and employer-funded health plans. This has made market regulation more difficult when bogus groups claim federal preemption to avoid state oversight. Finally, federal policies in a number of other areas such as antitrust, international trade, law enforcement, taxation and the regulation of banks and securities have significant implications for the insurance industry and state regulation.

The bifurcation of governmental authority over insurance can lead to some incentive conflicts. Congress is motivated to step in and impose regulatory restriction on certain, high-visibility areas such as health insurance and managed care. This may play well with voters but the federal government is not held responsible for the effective enforcement of the laws it imposes nor market outcomes. The states are expected to enforce the federal

¹¹ For example, when the failure of a number of substandard auto insurers prompted the introduction of federal legislation to create a national guaranty fund system in 1969, the NAIC moved quickly to adopt model guaranty fund acts for property/casualty and life/health insurers which were subsequently enacted by many states.

standards, as well as maintain the viability of insurance markets.¹² Hence, state regulators are forced to deal with the market distortions and solvency problems created by federal laws while the Congress takes credit for so-called “consumer protection” legislation.

IV. Financial Regulatory Activities

Protecting policyholders and society in general against excessive insurer insolvency risk should be the primary goal of insurance regulation. Regulators protect policyholders’ interests by requiring insurers to meet certain financial standards and to act prudently in managing their affairs. Solvency regulation polices a number of aspects of insurers’ operations, including: 1) capitalization; 2) pricing and products; 3) investments; 4) reinsurance; 5) reserves; 6) asset-liability matching; 7) transactions with affiliates; and 8) management.

U.S insurance regulators take a *prescriptive* approach towards overseeing insurer solvency. State laws and regulations impose an extensive and detailed list of requirements and restrictions on insurers’ financial structure and transactions. Monitoring and enforcing insurers’ compliance with these requirements and restrictions occupies a significant portion of regulators’ time. This approach contrasts with a *prudential* regulatory model, as employed in the U.K. and the EC, in which statutory limits provide greater flexibility to insurers. At the same time, regulators exercise greater authority and discretion in close working relationships with insurers to promote proper business and financial risk management. In the U.S., insurance regulators have been tentatively

¹² Federal insurance laws typically provide for default enforcement by a federal agency if a state refuses to enforce a law. However, historically federal agencies have been unprepared to establish the infrastructure necessary to perform regulatory tasks that come to them by default.

moving to a more risk-based approach in financial oversight, but they have a way to go in terms of matching U.S. banking regulators and satisfying progressive minded insurance experts. This difference in regulatory approaches is one of the challenges that insurance and banking officials face in coordinating their responsibilities.

A. Financial Requirements

Capital Standards

Capital standards are a critical requirement in solvency regulation. Capital and surplus provide a cushion against unexpected increases in liabilities and decreases in the values 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, i.e., 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 will ultimately be unable to meet its obligations to policyholders.¹³ The states have fixed minimum capital and surplus requirements as well as risk-based capital (RBC) requirements.

¹³ All states have a battery of laws and regulations similar to NAIC model acts that authorize the insurance commissioner to take action against companies deemed to be in hazardous condition. Regulators have been criticized for moving too quickly in some instances and not quickly enough in others. The appropriate nature and timing of regulatory intervention is a complex issue that does not lend itself to a simplistic, ex post evaluation.

Fixed Minimum Capital and Surplus Requirements

State fixed minimum capital and surplus requirements for stock companies range from \$500,000 to \$6 million depending on the state and the lines that an insurer writes (Table IV.1). Initial capital and surplus standards for new insurers are often higher than maintenance standards for insurers that have been in business for several years. Multi-line insurers are generally required to hold more capital than mono-line insurers. Capital requirements also tend to be higher for insurers writing casualty lines. The typical state fixed minimum capital requirement for a multi-line insurer is in the area of \$2 million.

Fixed minimum capital requirements have been generally intended to ensure that a company has adequate surplus to initiate operations and fund receivership expenses in the event of insolvency. As insurers have grown over time and incurred increasing risk, it became apparent to regulators that fixed minimum requirements were inadequate to provide an adequate cushion for most insurers. Some states responded by increasing their fixed capital requirements when insolvencies increased in the late 1980s. However, the most important development has been variable risk-based capital (RBC) requirements.

Risk-Based Capital

The concept of **risk-based capital** recognizes that insurers range widely in size and the types of risks they assume which make fixed minimum capital standards inadequate for many companies. 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 RBC requirements for life-health insurers

in 1992 and for property-liability insurers in 1993, which are intended to partially correct the deficiencies of fixed standards. The NAIC developed RBC requirements specific to health insurance in 1997. An insurer is required to meet the greater of its RBC standard or the fixed minimum capital requirements of the states in which it is licensed to do business.

RBC is intended to be a **minimum** regulatory capital standard and not necessarily the amount of capital that an insurer would want to hold to meet its safety and competitive objectives. The stated objectives of the NAIC RBC requirements are to provide a standard of capital adequacy that: 1) is related to risk; 2) raises the safety net for insurers; 3) is uniform among states; and 4) provides authority for regulatory action when actual capital falls below the standard.

The NAIC's life-health RBC formula encompasses four major categories of risk: 1) asset risk; 2) insurance or pricing risk; 3) interest rate risk; and 4) business risk. The risks addressed by the NAIC's property-liability formula differ in some respects and include: 1) asset risk; 2) credit risk (uncollectible reinsurance and other receivables); 3) underwriting (pricing and reserve) risk; and 4) off-balance sheet risk (e.g., guarantees of parent obligations, excessive growth). The health insurance RBC requirements developed by the NAIC are intended to provide more refined RBC amounts that reflect the relative risks involved with different types of health insurance.

The RBC 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 in 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.¹⁴ Insurers are required to report their RBC and TAC in their annual statements, but the details of their calculations are filed in a confidential report.

Under the RBC model law, certain company and regulatory actions are required if a company’s TAC 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, as indicated in Box IV.1. An insurer falling between the highest (Company Action Level - CAL) and second highest (Regulatory Action Level - RCL) thresholds 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 second level, the commissioner is required to examine the insurer and institute corrective action, if necessary. Between the third (Authorized Control Level -ACL) and fourth (Mandatory Control Level - MCL) thresholds, the commissioner is authorized to rehabilitate or liquidate the company. If an insurer’s capital falls below the Mandatory Control Level, the commissioner is required to seize control of the insurer.

Box IV.1 RBC Action Levels		
Action Level	Percent of ACL	Requirements
Company Action	200	Company must file plan.
Regulatory Action	150	Commissioners must examine insurer.
Authorized Control	100	Commissioner authorized to seize insurer.
Mandatory Control	70	Commissioner required seizing insurer.

¹⁴In the life/health 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 TAC. In the property-liability formula, any discount of loss and loss adjustment expense reserves reflected in Schedule P is added back to reported capital and surplus to calculate TAC.

It is fair to say that the NAIC set the bar relatively low when it adopted its RBC formulas.¹⁵ Most insurers, as indicated in Figure IV.1, have TAC that exceeds their RBC requirement. Among property-casualty insurers in 1999, only 15 fell below the mandatory control level. Nine fell between the MCL and ACL, 25 fell between the ACL and RCL, and 25 fell between the RCL and the CAL. Among life-health insurers in 1999, only one fell below the mandatory control level. Four fell between the MCL and ACL, seven fell between the ACL and RCL, and 17 fell between the RCL and the CAL.

Reserve Requirements

Life-Health Insurers

In addition to capital requirements, insurers are subject to other regulations with respect to their financial structure and operations. Insurers are mandated to set aside reserves for future benefit payments and potential losses on investments. Historically, life insurers were required to maintain mandatory reserves for potential losses on stocks and bonds based on regulatory valuations and credit designations (i.e., the Mandatory Security Valuation Reserve (MSVR)). No mandatory cushion for losses existed for other major investments, which became a problem when the economy soured.

These requirements were significantly enhanced with the adoption of the Asset Valuation Reserve (AVR) and the Interest Maintenance Reserve (IMR) requirements, which became effective in 1993 for the 1992 reporting year. The AVR extended and refined reserve requirements for all major asset classes including real estate and mortgage

¹⁵ See Cummins, Harrington and Klein (1995) for an evaluation of the RBC formula for property-casualty insurers and a discussion of issues related to its design.

loans. The IMR also requires insurers to amortize interest-related gains and losses over the remaining life of a disposed asset. Insurers are required to file special schedules detailing the calculations of these reserves.

Insurers are further required to maintain adequate reserves for their liabilities for future claims and benefit payments. The level premium method of pricing for multi-year and permanent life insurance policies requires insurers to build significant policy reserves in the early years of a block of policies that are needed in later years when benefit payments exceed premium receipts. Historically, the rules for life insurers' reserves have tended to be relatively prescriptive based on standard actuarial procedures and assumptions. Increasing insurer and regulatory attention to asset-liability matching has encouraged actuaries to employ more dynamic methods in setting reserves and managing various financial risks (Swiss Re, 2000b).

It is one thing to solicit support for this concept, it is another to obtain consensus on how it should be implemented. This is reflected in the controversy over the NAIC's adoption and revision of the infamous "Triple X" actuarial guidelines for valuing life insurance policy reserves. The guidelines affect insurers' practices with respect to determining "deficiency reserves" when the premiums guaranteed by an insurer are substantially lower than guarantees stipulated by law. In 1995, the NAIC adopted a model regulation intended to close a loophole, which some insurers used to avoid establishing deficiency reserves for multi-year term life insurance policies. However, the 1995 regulation was criticized for being overly restrictive and few states adopted it. A revised regulation was adopted in 1999, which had broader state and industry support. The revisions offered some advantages to insurers selling more conservatively priced

shorter-term (i.e., 15 years or less) and whole life policies, while retaining higher reserve requirements for longer-term policies. The ultimate objective is to get all states to adopt the new regulation to establish uniform reserve guidelines nationwide.

Property-Liability Insurers

With the exception of statutory formulas for workers' compensation reserves, the requirements governing property-liability are less prescriptive. The primary challenge for property-liability insurers is to determine reserves for claims that have been incurred but not yet paid. The factors affecting property-liability insurers' obligations for future claims payments tend to vary and are more subjective (than for life insurers), particularly for long-tail lines where claims obligations can extend many years beyond the termination of policy. The increased danger of large catastrophes also has required insurers to use sophisticated modeling techniques to manage the risk of low frequency, high-severity loss events, which may include setting aside additional capital.¹⁶ Regulators must evaluate the financial statements and actuarial opinions filed by property-liability insurers to assess whether insurers are establishing adequate reserves.¹⁷ If regulators believe that an insurer is shorting its reserves, they may require the insurer to increase its reserves or take other action.

¹⁶ Under current U.S. regulatory and tax law, there is no specific provision for catastrophe reserves. The NAIC and some insurers have been working on proposed legislation that would provide favorable tax treatment for catastrophe reserves. The political prospects for enactment of this legislation are uncertain. See Russell and Jaffee (1997) and Davidson (1996) for discussions of catastrophe reserves.

¹⁷ One way regulators can assess the accuracy of an insurer's reserves, is to examine reserve development patterns reflected in the insurer's financial statement. If regulators determine that an insurer's initial estimates of its reserves are significantly and consistently below its ultimate claims payments, they will be more likely to force the insurer to increase its reserves.

Investment Restrictions

The high-risk investment strategies of some insurers and the casualties that occurred when the junk bond and real estate markets declined in the early 1990s have led regulators to intensify their oversight of insurers' investments. Historically, state laws regulating insurers' investments were relaxed over the years to allow insurers to take advantage of high-yield investments to support new products. This changed when the asset problems of Executive Life and several other insurers prompted the NAIC, in 1990, to adopt a model law restricting an insurer to no more than 20 percent of its assets in non-investment grade bonds, with additional restrictions on the proportions of assets in the lower-rated categories. Several states adopted the model law or similar restrictions on junk bonds. This was accompanied by the refinement and strengthening of the process for assigning SVO credit designations or categorization of insurers' bonds and preferred stocks.

Yet, regulators were still concerned about other high-risk assets and investment diversification issues. In 1996, the NAIC adopted a comprehensive model law covering all insurer investments. This model law, labeled the "stated limits" investment law, is a good illustration of the prescriptive approach to financial regulation. Its intended objectives are to: preserve principal; assure reasonable diversification; and to require insurers to allocate investments prudently to meet obligations to insureds and maintain sufficient financial strength to cover reasonably foreseeable contingencies. The model law seeks to attain these objectives through relatively detailed and specific limitations on and requirements for various types of assets. These include certain limits on the amounts or relative proportions of different assets that insurers can hold to ensure adequate

diversification and limit risk. These provisions vary somewhat between life-health and property-liability insurers, recognizing differences in their liability structures and investment needs.

The first model investment model law prompted criticisms that it was too prescriptive and arbitrary. Several states persuaded the NAIC to adopt a second investment model law that utilizes what is known as the “prudent person” approach. Conceptually, this approach allows insurers greater discretion in terms of their allocation of investments if they can demonstrate that they have a sound investment plan and that they adhere to that plan. Regulators are authorized to intervene if an insurer fails to meet this more general requirement. The states are adopting one or the other NAIC models, or something in-between.

Continuing innovation in insurance products and financial instruments will challenge insurance regulators, particularly those using a prescriptive approach, to keep pace with new types of investments. The regulatory and accounting treatment of derivatives is one of the more complex areas that regulators and the industry are negotiating. Few argue with the need for regulatory oversight and some caution, but there are concerns that the regulatory structure lags behind financial innovations and hampers their effective use by insurers. Financial convergence will increase pressure for maintaining a level playing field among different financial institutions with respect to asset management.

Other Financial Requirements

Other statutes and regulations pertain to different aspects of insurers operations. Holding company laws regulate 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 (MGAs) in the areas of pricing, underwriting and paying claims. Delegation of these functions to MGAs without proper oversight has contributed to a number of insurer insolvencies. In general, insurance company managers are required to act prudently in protecting policyholders' interests and regulators are authorized to seize control if management actions threaten a company's solvency.

The regulation of reinsurance transactions was strengthened in the late 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 carrier 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.

Increasing use of securitization as an alternative or complementary risk transfer device has required the states to consider the regulatory and accounting treatment of securitization transactions vis a vis traditional reinsurance (Klein, Grace and Phillips, 2000). At least two sets of issues arise. One is how to allow insurers "credit" on their balance sheets and other financial reporting for securitization transactions that effectively transfer risk. A second set of issues involves the federal income tax treatment of

securitization transactions that are effected through Special Purpose Vehicles. Most of these transactions have been conducted outside of the U.S., which has tax advantages, but some U.S. insurers would like to achieve the same benefits with onshore transactions.

White-collar fraud in the management of insurers and scams involving excessive or illegal claims has been a pervasive and vexing problem. The states and the NAIC have significantly boosted anti-fraud efforts by establishing fraud sections within many larger insurance departments, tracking companies and individuals of potential concern, and increasing coordination with federal law enforcement authorities. States are able to access special databases 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 insurance company funds.

B. Solvency Monitoring

Regulatory requirements are of little value if there is no mechanism to monitor insurers' financial risk and regulatory compliance. Fundamentally, the objective of solvency monitoring should be to ensure that insurance companies meet regulatory standards and alert regulators if actions need to be taken against a company to protect its policyholders. Historically, this monitoring has focused on nominal compliance with regulations but there is a strong need to progress to a focus on financial risk. 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. Regulators receive other confidential reports and they may compel insurers to provide other information as necessary to assess their financial condition.¹⁸

Insurance departments typically subject financial statements to review by an in-house financial analyst or examiner who analyzes the financial condition of the insurer and determines whether regulatory action is warranted. The NAIC also scrutinizes insurers' financial statements and disseminates financial ratio results to insurance departments. Additionally, as noted above, the NAIC has a special financial analysis division and regulatory working group that monitor larger, multistate insurers and communicate with the states regarding companies that may be in financial difficulty. The NAIC's Financial Analysis Handbooks (2000d), one for property-casualty insurers and the other for life-health insurers, prescribe a process consisting of several levels. Questions and anomalies that arise at higher levels should lead to more in-depth analysis and evaluation.

Regulators monitor indicators of excessive financial risk and hazardous financial condition to mitigate the causes and costs of insolvency. Studies indicate that the most common causes of property-liability insurer failures are deficient loss reserves, inadequate rates and rapid growth (A.M. Best, 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

¹⁸State 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."

failures have been inadequate pricing and rapid growth, followed by problems of affiliates, overstated assets, fraud, and significant changes in business, reinsurance failure and new management (A.M. Best 1992; ACLI, 1990).

Some of these factors will continue to play a role in insurer insolvencies. However, regulators also must be attuned to new threats to insurers' financial viability. GLBA will increase the importance of monitoring transactions between affiliates and the effect of subsidiaries' risk on a holding company and vice versa. Obviously, communication among the different regulatory authorities will be critical.

Statutory Accounting

Insurance regulatory accounting is a unique animal. Insurance companies are required to file financial statements with insurance regulators in accordance with what are called statutory accounting principles (SAP), which differ somewhat from Generally Accepted Accounting Principles (GAAP). Statutory accounting seeks to determine an insurer's ability to satisfy its obligations at all times, whereas GAAP measures the earnings of a company on a going-concern basis from period to period. Under SAP, most assets and liabilities are valued conservatively and certain non-liquid 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.

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 would provide 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, which are distorted by historical cost accounting.¹⁹ 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 (FASB) adopted market value reporting requirements for bonds for purposes of GAAP financial statements. While this has increased pressure on insurance regulators to reconsider the SAP approach, they are reluctant to implement any changes until there is greater consensus on allowing insurers to discount liabilities to present value.

It also should be noted that insurance regulators tend to assess solvency at an individual company level, even among companies affiliated within a group or holding company, while other financial regulators have tended to focus on consolidated statements for an entire holding company structure.

The statutory accounting rules for insurance companies are fairly similar among the states but there are differences, which further confound analysts. Historically, statutory accounting principles have not been articulated in a way that consistently clarifies their interpretation and application on a comprehensive basis. In addition, many states have statutes that require accounting practices that differ from those promulgated by the NAIC. Consequently, an insurer's compliance with SAP sometimes can be a matter of

¹⁹A historical cost system induces insurers to sell (hold) assets when market values are greater (less) than book values to improve their reported financial position (Cummins, et. al, 1995).

interpretation and can vary among the states depending on the practices permitted by each state.

Recognizing the need to clarify statutory reporting requirements, in 1991, the NAIC embarked on a project to codify SAP so that insurers, regulators, and independent auditors would have comprehensive statutory accounting guidance. The project is intended to standardize accounting guidelines across the states as well as provide definitions where they have been lacking heretofore.²⁰ In 1994, the NAIC adopted a Statement of Concepts to provide guidance on the codification project. The statement uses GAAP as a general framework and addresses objectives exclusive to SAP. The intention is to utilize the extensive guidance available in GAAP when it is consistent with insurance regulatory objectives and provide comprehensive guidance for statutory principles that differ from GAAP.

The NAIC vetted a series of approximately 100 papers that address numerous technical accounting issues. Many of the papers have been revised and adopted but some issues remain to be resolved. The NAIC's adoption of the accounting requirements contained in the issue papers effectively establishes a set of codified statutory accounting principles. The new guidelines are intended to supplement each state's financial reporting requirements. They are designed to improve uniformity and expand disclosures in financial reporting while maintaining the states' authority over statutory accounting.

Still, the differences between SAP and GAAP and the insurance regulatory focus on solvency and the banking regulatory focus on risk will likely generate continued debate. It

²⁰The NAIC publishes several references that provide some information on statutory reporting requirements: the Annual Statement Blanks; the Annual Statement Instructions; the Accounting Practices and Procedures Manual; and the Examiners Handbook. There are separate volumes of the annual statement and accounting practices materials for the different types of insurers.

should be noted that efforts to develop a consistent form of international GAAP accounting standards for insurance has met resistance. Ultimately, the convergence of financial and global markets will pressure the presiding authorities to concede to a more common set of accounting principles.

In general, insurance financial reporting requirements in the U.S. 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. Statements of actuarial opinion (property-liability insurers) and asset adequacy analysis (life/health insurers) and independent CPA audit requirements also have been instituted. Regulators have used these mechanisms to increase the depth and scope of their monitoring activities and better detect excessive financial risk and emerging solvency problems. They will be challenged to continue to keep pace with industry changes. Also, creating, processing and verifying the massive amount of financial information that insurers are required to report is becoming unwieldy and may eventually prompt more efficient means of monitoring insurers' financial data.²¹

Financial Analysis and Early Warning Systems

States typically prioritize the review of their domiciliary companies and any companies that require expedited scrutiny. Most departments utilize some system of

²¹ To elaborate, the format for insurer financial reporting and related information systems is still paper-driven and rooted in the mid-19th century. Consequently, exhibits continue to be added and expanded that manipulate the same core information in numerous ways. The NAIC has implemented an electronic reporting system but it is still based on a paper-oriented framework. A new framework for reporting that is based on electronic information technology could yield substantial efficiencies.

financial ratios or other tools to screen and prioritize insurers for analysis. Regulators also utilize NAIC financial information systems including the Insurance Regulatory Information System (IRIS), which includes the Financial Analysis Solvency Tools (FAST) system, and other reports. Various additional sources of information may be tapped including: Securities and Exchange Commission (SEC) filings; claims-paying ability ratings; complaint ratios; market conduct reports; correspondence from competitors and agents; news articles; and other sources of anecdotal information.

Regulators have enhanced their 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 avoid excessive financial risk.

Since the early 1970s, the NAIC and the states have utilized IRIS to monitor insurers’ financial condition at a national level and identify those insurers requiring further regulatory attention. Companies’ financial data are first processed through a statistical phase consisting of a series of 12 financial ratios (which differ among property-casualty and life-health insurers) (see Box IV.2), as well as a series of additional screening criteria.²² Companies deemed to be “first priority” are followed up by the NAIC’s

²²A 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 different screening criteria are used to select property-liability companies and 12 different criteria are used to select life/health companies for further detailed analysis by the NAIC. These criteria are not made public but generally encompass

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

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.

Box IV.2
IRIS Ratios

<u>Property/Casualty</u>	<u>Range</u>	
1. Gross Premiums Written to Policyholders' Surplus	900	----
1A Net Premiums Written to Policyholders' Surplus	300	----
2. Change in Net Writings	33	-33
3. Surplus Aid to Policyholders' Surplus	15	----
4. Two Year Overall Operating Ratio	100	----
5. Investment Yield	10	4.5
6. Change in Policyholders' Surplus	50	-10
7. Liabilities to Liquid Assets	105	----
8. Gross Agents' Balances to Policyholders' Surplus	40	----
9. One Year Reserve Development to Policyholders' Surplus	20	----
10. Two Year Reserve Development to Policyholders' Surplus	20	----
11. Estimated Current Reserve Deficiency to Policyholders' Surplus	25	----
<u>Life/Health</u>	<u>Range</u>	
1. Net Change in Capital and Surplus	50	-10
1A. Gross Change in Capital and Surplus	50	-10
2. Net Income (including Realized Capital Gains and Losses) to Total Income	----	0
3. Adequacy of Investment Income	900	125
4. Non-admitted to Admitted Assets	10	----
5. Real Estate & Mortgage Loans to Cash & Invested Assets	30	----
6. Total Affiliated Investments to Capital and Surplus	100	----
7. Surplus Relief		
a. > \$5 million capital/surplus	30	-99
b. ≤ \$5 million capital/surplus	10	-10
8. Change in Premium	50	-10
9. Change in Product Mix	5	----
10. Change in Asset Mix	5	----
11. Change in Reserving Ratio	20	-20

parameters are available to the public through a published report but insurers' priority status is not published.

The IRIS ratios continue to be refined over time based on regulators' experience with troubled insurers. 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 are taking effective action with respect to larger, multistate insurers that are may be in financial difficulty. Currently, nationally significant insurers are deemed to be those companies that write business in 17 or more states and have gross premiums (direct plus assumed) written in excess of \$50 million for life/health companies and \$30 million for property-liability insurers.

The NAIC's Financial Analysis Division subjects insurers' financial statements to a computerized analytical routine, FAST, which prioritizes companies for further analysis. FAST consists of a series of approximately 20 financial ratios based on annual and quarterly statement data (see Box IV.3), but, unlike the original IRIS ratios, it assigns different point values for different ranges of ratio results. A cumulative score is derived for each company, which is used to prioritize it for further analysis. Annual and quarterly scores are computed and reviewed. Certain companies are classified as priority based on their score and a specified cut-off point. Like the IRIS ratios, the FAST ratios continue to be refined over time.

The second major component of the FAST system is a set of annual and quarterly profile reports, which 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. These and other tools have been integrated into a Financial Analyst Workbench application available to all state regulators.

Separate FAST systems exist for life, health and property-liability insurers. FAST utilizes some IRIS ratios but it also includes a number of additional ratios/tests not encompassed in IRIS. For example, there are FAST-only property-liability variables for increases in gross premiums, the ratio of short-term invested assets to surplus, negative cash flow, concentration in long-tail lines and managing producer exposure.

While the specifications of the IRIS ratios have been public knowledge since their inception, and companies' ratio results have been public since 1989, information about the FAST system and companies' FAST results generally have not been available outside the regulatory community. The reason for this is that FAST has been used primarily to focus intensive regulatory attention on insurers of particular concern. Because FAST effectively prioritizes insurers according to the need for regulatory review, there is a greater potential for 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. While regulators can use further analysis to sort out "false positive" scores, 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.

Empirical research on the FAST system indicates that it is a reasonably effective system for early warning purposes.²³ Grace, Harrington and Klein (1998a, 1998b) performed the first study of FAST and found that it identified approximately 80 percent of insurers that would fail in three years using a cutoff point that offers a reasonable tradeoff between false positive and false negative indications. At the same time, they noted some improvements could be made to FAST to increase its accuracy as well as the inherent limitations of any static ratio system using statutory accounting data. A subsequent study by Cummins, Grace and Phillips (1999) demonstrated that predictive accuracy could be further improved with a system combining FAST ratios, financial strength ratings and dynamic financial modeling to identify troubled insurers.

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 that it will subject to further study. For these insurers, FAWG queries the domiciliary state on various aspects of the insurers’ financial condition and regulatory actions taken. If FAWG determines that the domiciliary regulator has taken the appropriate actions, then FAWG may close the file or continue to monitor the company. 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

²³ Some comments are appropriate in evaluating the implications of this research for regulatory monitoring. First, the evaluation of FAST ratios is biased somewhat in that they are one of the factors used in regulators’ decision to seize a company. Second, they are based on historical contributors to the insolvencies that are also used to test their effectiveness. See Grace, et. al. (1998a, 1998b) for a discussion of these and other methodological issues.

Box IV.3
FAST Ratios

Property-Casualty

- | | |
|-------------------------------------------------------------|---------------------------------------------|
| 1. Investment Yield Deviation | 12. Reserves to Surplus |
| 2. Change in Combined Ratio | 13. Two Year Reserve Development to Surplus |
| 3. Gross Expenses and Commissions to Gross Premiums Written | 14. Affiliated Investments to Surplus |
| 4. Change in Gross Expenses and Commissions | 15. Affiliated Receivables to Surplus |
| 5. Gross Premiums Written to Surplus | 16. Miscellaneous Recoverables to Surplus |
| 6. Net Premiums Written to Surplus | 17. Non Investment Grade Bond Exposure |
| 7. Change in Gross Premiums Written | 18. Other Invested Assets to Surplus |
| 8. Change in Net Premiums Written | 19. Change in Liquid Assets |
| 9. Surplus Aid to Surplus | 20. Change in Agents Balances |
| 10. Reins. Recoverable on Paid Losses to Surplus | 21. Cash Flow From Operations |
| 11. Reins. Recoverable on Unpaid Losses to Surplus | 22. Change in Policyholders Surplus |

Life

- | | |
|--------------------------------------------------------------------|------------------------------------------------------------------|
| 1. Change in Capital & Surplus | 10. Grp. Surr. to Grp. Prem./Grp. Dep. Type Funds |
| 2. Surplus Relief | 11. Change in Liquid Assets |
| 3. Chng. in Net Prem./Ann. Cons./Dep. Type Funds | 12. Aff. Investments/Receivables to Capital/Surplus |
| 4. A&H Bus. to Net Premiums and Annuity Cons. & Deposit Type Funds | 13. Non Inv. Gr. Bonds & St. Inv. to Capital & Surplus & AVR |
| 5. Change in Dir. & Ass. Annuities & Deposit Type Funds | 14. Collateralized Mortgage Obligations to Total Bonds |
| 6. Stockholder's Dividends to PY Capital & Surplus | 15. Problem Real Estate and Mortgages to Capital & Surplus & AVR |
| 7. Change in Net Income | 16. Sch. BA Assets to Capital & Surplus & AVR |
| 8. Trending of Net Income | 17. Total Real Estate and Mortgages to Capital & Surplus & AVR |
| 9. Surrenders to Premiums & Deposit Type Funds | |

Health

- | | |
|----------------------------------------------------------------|---------------------------------------------------------------|
| 1. Change in Capital & Surplus | 9. Change in Net Income |
| 2. Surplus Relief | 10. Trending of Net Income |
| 3. Gross A&H Premiums to Capital & Surplus | 11. Comm. & Incurred Exp. to Prem. & Ann. Dep. |
| 4. Net A&H Premiums to Capital & Surplus | 12. Change in Liquid Assets |
| 5. Gross A&H Res. to Capital & Surplus | 13. A&H Reserves to Liquid Assets |
| 6. A&H Reserve Deficiency | 14. Affiliated Investments & Receivables to Capital & Surplus |
| 7. Change in Net Prems. & Annuity Cons. and Deposit Type Funds | 15. Sch. BA Assets to Capital & Surplus & AVR |
| 8. Stockholder's Divs. to Prior Year Capital & Surplus | 16. Total R.E. and Mortgages to Capital & Surplus & AVR |

follow FAWG's recommendation, FAWG will alert other states accordingly and coordinate their actions against the troubled company.

There is little doubt that 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. Excessive forbearance by a domiciliary state can be countered by review and pressure by other states.²⁴ Non-domiciliary 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 non-domiciliary states restrict a troubled insurer's activities, the domiciliary regulator is compelled to take appropriate actions. The collective resources and expertise of the various state insurance departments and the NAIC also are more efficiently coordinated and focused on a troubled company through this process. Indeed, peer review is one of the inherent strengths of the state insurance regulatory system.

As much as financial statements have been expanded and basic solvency tools have been enhanced, regulators have recognized that there are inherent limits to these devices. Not all factors affecting an insurer's financial condition can be incorporated into financial statements and the impact of certain actions on an insurer's financial results may take some time to become apparent. Hence, as noted above, regulators are continually looking for other sources of information to supplement standard financial reporting in order to

²⁴ Arguably, with a single regulator there would be the danger of that regulator failing to take timely action without the checks provided by other regulators with overlapping responsibility. Of course, one might argue that the regulation of some banks is subject to a certain peer review with the overlapping authority of more than one federal agency, including the FDIC.

more quickly detect problems that may jeopardize a company's long-term viability. An increase in consumer complaints, for example, may reveal that an insurer is delaying the payment of claims because of financial problems. A department's rate analysts can advise its financial section if an insurer's pricing appears to be overly aggressive and potentially inadequate or if it enters into a new line of business. Consequently, insurance departments have made greater efforts to coordinate information from their market and solvency units.²⁵ The NAIC has assisted the states in accessing and analyzing supplementary information through its mainframe, LAN-based and CD-ROM electronic systems.

Examinations

Examinations are a fundamental component of the solvency monitoring process. Historically, in insurance regulation, primary reliance had been placed on the comprehensive triennial examination, although regulators have had the authority to examine companies whenever they deem necessary. Some insurers may need to be examined more frequently than every three years while others may need to be examined less frequently. State regulators are increasing their reliance 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 further encourages the use of "association" or "zone" examinations in which various states participate to consolidate efforts and avoid duplicative and redundant examinations of the

²⁵ A recent study by PricewaterhouseCoopers and Georgia State University of market conduct regulation reveals that financial and market conduct units are increasing their coordination to identify troubled insurers.

same company. The NAIC's Financial Condition (EX4) Subcommittee also may encourage non-domiciliary 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.

In 1990, the NAIC conducted a comprehensive review of the examination process. It concluded that periodic examinations should be supplemented by limited scope or targeted examinations of insurers based on well-defined selection criteria. 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 pre-examination preparation, financial analysis and risk-based examinations, which focus on particular areas of concern, is being encouraged. The NAIC substantially revised its Examiners Handbook to incorporate the new recommendations. State examiners are trained in the new examination and analysis methods.

One important component of improved examination procedures is the use of automated or EDP-assisted examinations. The NAIC helped to develop automated exam systems and provides consulting support to assist state examiners in the pre-examination and on-site phases. 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 and helps to ensure the veracity of insurers' annual financial reporting and the effectiveness of the solvency monitoring process.

C. Intervention and Guaranty Associations

Intervention and Receiverships

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 protect policyholders. Regulators first seek to rehabilitate troubled insurers if possible,

and sell or liquidate them if rehabilitation is not feasible or unsuccessful. There are two levels of regulatory actions: 1) actions to prevent a financially troubled insurer from becoming insolvent; and 2) delinquency proceedings against an insurer for the purpose of rehabilitating or liquidating the insurer (NAIC, Troubled Companies Handbook, 1989). 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 companies may be confidential and others may be publicly announced. Sales or mergers of troubled insurers are often negotiated by regulators to avoid market disruptions. Regulators indicate that 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 preventative 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 seizure of assets, rehabilitation, and liquidation. For many insurers, these actions are progressive. A regulator may first seek to rehabilitate a company to maintain availability of coverage and avoid adverse effects on policyholders and claimants, as well as lower insolvency costs. For example, it is often possible to sell a troubled life insurer's book of business to another insurer, which decreases insolvency costs. However, the regulator may ultimately be forced to liquidate

the company if rehabilitation does not prove to be feasible. Regulators typically need court approval for such actions, which may be challenged by the troubled insurer.²⁶

State insurance regulators have been criticized for exercising excessive forbearance in seizing troubled insurers (e.g., Mission Insurance Company), which ultimately inflates the cost of the insolvency when an insurer is liquidated (see Failed Promises, 1990; GAO, 1991; and Hall, 1998). However, it can be costly for a commissioner to initiate an insolvency action, particularly if the insurer fights the action in court, and there is no guarantee that the commissioner will prevail. Regulators also face some uncertainty about the prospects for a troubled insurer given different courses of regulatory intervention. Precipitous regulatory action could create an unnecessary run on the company. The regulatory challenge is to determine an appropriate intervention strategy given the circumstances surrounding the insurer, the information available and the constraints present at the time regulators must make a decision. Ideally, regulators will follow an optimal intervention strategy that may not prove to be successful in every single case, but that, on average, minimizes insolvency costs plus costs arising from unnecessary or premature regulatory action.

At the same time, it would be naïve to imply that political economy does not play a role in regulatory intervention. The owners or managers of an insurer often have strong political influence in the state where the insurer is domiciled. Also, the insurer may be a major employer in the state, which can further discourage quick regulatory action. Further, there is an externality problem. As explained below, the costs of unfunded

²⁶For 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 of these companies.

claims associated with a particular insolvency are shared among all the states in which an insurer does business, while the economic and political gains from regulatory forbearance may be more concentrated in the domiciliary state. Recognition of these problems played a role in the NAIC's decision to establish a formal peer review process for multistate insurers.

Guaranty Associations

State guaranty associations have been established to protect policyholders, claimants and beneficiaries against financial losses due to insurer insolvencies. While most stakeholders support some form of insolvency guaranties, some experts criticize the current system for creating a significant moral hazard problem. 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.²⁷ 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 insurance companies are required to be members of the state guaranty association. However, most states exclude HMOs from guaranty association participation.

²⁷Most 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 (NCIGF) and information on life/health funds can be obtained from the National Organization of Life and Health Guaranty Associations (NOLGHA).

Guaranty associations 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 associations. The burden of guaranty association assessments are ultimately shared by: 1) all policyholders through higher insurance rates; 2) taxpayers because of state premium tax offsets (in some states) and deductions for federal income taxes; and 3) owners of insurers (Barrese and Nelson, 1994).

Viewed over a long period, guaranty association assessments represent a small fraction of industry premiums, less than 0.5 percent. However, as shown in Figure IV.2, there have been periods when guaranty associations have spiked and imposed a more substantial burden on various stakeholders. Concerns have been raised about the capacity of the system to accommodate a large increase in insolvency costs and the disincentives to control these costs. The capacity issue is complex and debatable. Capacity concerns have been misdirected towards the nominal statutory limits on assessments in each state, which can be raised by the legislature if necessary. More significant is the fracturing of capacity between states, which could pose a problem if substantial insolvency costs were concentrated in one or several jurisdictions. The most significant threat is a large industry loss shock or other adverse economic event, such as a severe natural disaster, which private and public risk bearing entities have not adequately diversified. However, the

scope and resolution of this problem extends beyond the guaranty association system per se.

What is more pertinent to the structure of insolvency guaranties is the concern that they promote excessive risk taking and insolvency costs. Guaranty associations have been criticized for diminishing buyers' incentives to avoid high-risk insurers. Proper incentives from the buyers' perspective could be maximized by totally removing guaranty association protections but there is no political support for such a move. The fact that even an optimal regulatory scheme will still result in a residual number of insolvencies might be offered as a rationale for retaining some sort of safety net for policyholders. Some have suggested, however, that safety incentives could be improved by having policyholders share a greater portion of insolvency costs or by imposing some form of risk-based assessment scheme on insurers if such a system proved to be feasible (see Cummins, 1988; Feldhaus and Barth, 1992; and Feldhaus and Kazenski, 1998). This idea will continue to resurface, especially if insolvency costs increase due to industry restructuring and "go-for-broke" behavior by insurers losing the race.

The system for administering insurer receiverships also has been criticized for its inefficiency. Bohn and Hall (1995) found that the cost of insurer insolvencies were three times the cost of bank insolvencies. Economies of scale are an issue here as receiverships required specialized expertise that many states cannot afford to maintain in-house. Consequently, outside contract receivers are often used. This practice is not inherently flawed, but regulators may fail to provide proper oversight of contract receivers.

D. Financial Regulation Standards and Accreditation

The growing interdependence of the states in regulating multistate insurers, coupled with the varying quality of regulation among the states in the face of 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 degree of confidence in the state's oversight of its domiciliary companies. The NAIC Policy Statement on Financial Regulation Standards, adopted in June 1989, articulated a comprehensive set of standards designed to establish consistent and effective regulation of the financial condition of insurance companies. The standards go beyond model laws by establishing a composite list of legislative and administrative prerequisites for an effective solvency regulatory program in three areas: 1) laws and regulations, 2) regulatory practices and procedures, and 3) organizational and personnel practices.²⁸

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 plan, each state's insurance department is reviewed by an independent review team whose job it is to assess that department's compliance with the NAIC's Financial Regulation Standards. Departments meeting the NAIC standards are publicly acknowledged, while departments not in compliance are given guidance by the NAIC on how to bring the department into compliance. If a state is unaccredited, some of its domiciliary companies may consider redomestication to an accredited state.

²⁸ Initially, it was contemplated that this would serve as a significant incentive for states to become accredited. In practice, it is difficult to prove as almost all states have become accredited. Still, accreditation will play an important role in initiatives to diminish redundant regulation by multiple states.

The accreditation program has significant implications for the effectiveness and efficiency of state solvency regulation of insurance companies. By certifying that a state's regulatory program meets certain minimum requirements, there is greater assurance that its oversight of its domestic insurers is adequate. This promotes efficiency by allowing each state to focus more of its resources on its own domiciliary insurers, which improves the quality of that regulation while avoiding duplicative analysis and examinations of insurers by non-domiciliary 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.

As the accreditation program matured and concerns were expressed that its requirements remain reasonable, the NAIC initiated an in-depth review of the relevance and effectiveness of the standards and accreditation program in 1995. In 1997, the NAIC adopted revisions to the financial regulation standards and accreditation process to better distinguish those laws and other standards that it believes to be critical to effective solvency regulation.

It is difficult to quantify the impact of the NAIC accreditation program but there is evidence to suggest 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 above, insurance department budgets and staffing have increased at a fast pace despite state fiscal constraints. There also is considerable anecdotal evidence 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. As of September 2000, 48 states

and the District of Columbia were accredited. Only two states and the four U.S. territories were unaccredited. The challenge will be to maintain a strong and relevant set of standards as the requirements for effective regulation change.

V. Emerging Issues and Regulatory Responses

The insurance industry's increasing complexity, risk and geographic scope place additional demands on regulators. GLBA and industry restructuring will add to this pressure. Regulators must try to limit insolvency risk while still allowing insurers to continue to innovate and compete. Industry developments have forced public officials to reassess this balance and modify regulatory institutions. Most insurers appear to 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 insurance products and investment strategies increases the opportunity for mismanagement, excessive risk taking and fraud that can lead to costly insolvencies. Consumers, with limited incentives for safety because of guaranty fund protection, are faced with greater difficulty in discerning the riskiness of insurers. 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. Substantial restructuring of the industry will force many insurers to merge, sell or go out of business, preferably without imposing insolvency costs on the public.

These developments and others have required regulators to become more sophisticated in policing insurers' financial structure and activities to protect consumers

and promote the public interest. These developments also have increased consumer and industry political support for more effective solvency regulation, qualified by many insurers' desire to retain flexibility in developing new products and adjusting their investment strategies.

This section reviews some of the more significant emerging developments affecting the insurance industry and its financial regulation. It is difficult to predict exactly what will happen but it is possible to discuss the general direction of important trends and their implications. Insurers and regulators need to keep an eye to the future in restructuring their institutions and operations to take advantage of new opportunities and respond to new challenges. Specifically, the developments addressed in this chapter are: industry growth, consolidation and increasing financial risk; integration of financial services markets; globalization of markets; demographic trends and public opinion; information technology and electronic commerce; and regulatory initiatives.

A. Industry Growth, Consolidation and Financial Risk

As discussed above, a wide variety of insurance products and services have appeared on the market to respond to a rapidly growing and diverse economy. This increases the demand on regulatory resources as regulators must police a larger market, as well as more complex products, transactions and investments. Regulators will need to find ways to perform their functions more efficiently as well as increase their resources when necessary to respond to this challenge. The restructuring of the industry may require regulators to refocus their energies and technology on core regulatory responsibilities,

such as solvency and abusive trade practices, and rely more heavily on competition and market forces to increase market efficiency in terms of prices and products.

Industry consolidation is evidenced by the continuing decline in the number of property-liability and life-health insurers that began in the late 1990s. Indeed, as shown in Figure V.1, 1998 was a banner year with 565 insurance-related acquisitions and mergers worth \$165.4 billion (Insurance Information Institute, 2000). The emergence of fewer, larger insurers presents both advantages and disadvantages to regulation. To the extent that less efficient and weaker insurers are culled from the market, regulators will be responsible for monitoring a smaller group of more sophisticated insurers. These insurers, presumably, will require less oversight with respect to preventing simple management errors and will have more capital to sustain short-term fluctuations in operating results.

At the same time, these insurers may still be highly leveraged and are likely to have more complex financial structures. Consequently, the risk of insolvency will still be present with higher potential losses because of insurers' greater size. Hence, regulators may wish to increase the depth and sophistication of their monitoring activities with an emphasis on assessing the overall financial risk of a company, rather than seeking to enforce detailed rules governing every transaction and investment. This approach would be more akin to the "prudential solvency regulation" model employed in some foreign countries with more concentrated markets.

B. Integration of Financial Services Markets

There is a definite trend towards increasing integration of insurance with other financial services markets. Recognition of this economic imperative prompted GLBA

that, in turn, will speed market convergence. Financial services companies are seeking to provide a broad array of financial services, including banking, credit, investments, and insurance. These companies perceive significant economies of scope in cross-marketing various financial products to their customers. Some insurance companies also would like to sell other financial services to their customers. Whether these services are sold by one company or multiple companies, there is no doubt that consumers perceive certain insurance products and investments as substitutes or complements and could value “one-stop shopping”, creating competition between the providers of these services.

Hence, economic forces are driving the integration of financial services markets, whether aided or impeded by federal and state laws. The recent merger of Travelers Insurance Group and Citicorp is a harbinger of things to come. Historically, in the U.S., the Glass-Steagall Act, had created walls between the selling of various financial services by the same firm. GLBA has significantly diminished these barriers. Financial holding companies are emerging that own various subsidiaries selling different financial services, including insurance. Under GLBA, regulation is intended to be structured on a functional basis, meaning that insurance regulators will regulate insurance transactions, securities regulators will oversee security transactions, etc., regardless of the type of institution that is engaging in these activities.

This will have significant implications for state insurance regulation. The states will be required to regulate the sale of insurance by non-insurance companies or insurers that are owned by large financial holding companies. There will be attempts to cross-market products, e.g., banks will attempt to sell insurance to their banking customers. Consumer

privacy and the sharing of customer information among affiliates is one of the more contentious issues on which deliberations continue.

Competition between insurers and other financial service companies will increase and there will be more mergers between insurers and other financial service providers. State regulators will be pressured to maintain a level playing field, so that no entity, regardless of whether it a licensed insurer or not, is disadvantaged in its efforts to sell insurance products. At the same time, the attempt to tie the sale of other products with insurance, to the potential detriment of consumers, will need to be policed. Insurance regulators also will have to regulate the insurance transactions of entities that will not be subject to the full scope of their authority in matters such as financial solvency. Clearly, there will need to be cooperation and coordination between the various regulators of financial services.

C. Globalization of Markets

Many insurers will continue to expand the geographic scope of their operations and competition from foreign insurers will increase as trade barriers are reduced. Foreign companies are making increasing inroads into the U.S. domestic market. Large European financial holding companies, bolstered by regulatory reforms, are becoming formidable competitors and increasing their penetration in foreign markets, including the U.S. At the same time, some U.S. insurers are establishing a stronger presence overseas. Domestic insurers have sought reduction of U.S. regulatory barriers to increase their competitiveness with foreign insurers. The potential size of some developing markets, such as China and Latin America, will breed large financial conglomerates that will be able to market an array of services. Figure V.2 provides estimates of the import and

export of insurance in the U.S. While exports have increased, imports of insurance into the U.S. have grown at a much faster rate.

The extension of insurers' operations across state and international boundaries has increased the interdependence among regulators in carrying out their responsibilities. This interdependence among regulators creates vulnerabilities as well as potential levers to induce different jurisdictions to do a good job in regulating. It is more difficult for state regulators to control the activities of insurers domiciled outside the U.S. Although alien insurers must meet a number of requirements to operate on a licensed or authorized non-admitted basis in the U.S., this does not prevent U.S. citizens and firms from purchasing insurance from alien companies on a direct basis. Such transactions are not subject to U.S. regulatory protections, nor guaranty association coverage. As more insurers extend their operations internationally, we are likely to see more of these types of transactions with increased potential for market abuses. Use of the Internet for digital commerce in insurance will greatly facilitate international transactions.

Ideally, the regulators in various countries will increase their cooperation and coordination to support the appropriate supervision of international insurers. This would facilitate international trade in insurance that would work to the advantage of insurance buyers and help to prevent unscrupulous insurers from taking unfair advantage of consumers. The International Association of Insurance Supervisors (IAIS) is playing a leading role in helping to upgrade and harmonize international insurance regulation.

D. Information Technology and Electronic Commerce

Technology is an important catalyst for change. Developments in information technology are having significant effects on the insurance industry, which is based on information. In theory, improved information technology should benefit both consumers and insurers, but the changes will raise issues for regulators. Insurance transactions over the Internet, i.e., electronic or digital commerce, are of great importance to regulation. Worldwide, approximately 115 million people use the Internet and its use as a medium of commerce in insurance is growing exponentially (see Figure V.3). EC is particularly well suited for the sale of many insurance products, particularly products with standardized contracts such as term life, auto, and home insurance. Many insurers have established web sites on the Internet to provide information and several vendors are developing electronic marketplaces for insurance. Consumers will be able to shop and buy insurance in these electronic marketplaces from various insurers.

The emergence of EC raises some interesting issues and challenges for state insurance regulation.²⁹ Traditionally, the states have exercised their authority over insurance through the geographic location of insurance transactions. However, the geography of commerce loses its traditional meaning when transactions are conducted over a worldwide electronic network. How, for example, will the insurance commissioner regulate the purchase of an auto insurance policy by a resident in a given state over the Internet from an insurer based in Belgium? While the states may seek to police such transactions as they have other direct marketing activities, the reality is that this will be very difficult to do in a world of electronic commerce. Consequently, consumers who

purchase insurance over the Internet will need to take greater responsibility in becoming informed and avoid abuses. State regulators will need to increase their information services to consumers and coordinate with regulators in other jurisdictions to address problems that may arise with insurers and intermediaries selling and servicing insurance over the Internet.

E. Regulatory Initiatives

Since 1985, state insurance regulation has progressed through two waves of reforms and is now entering a third. The first wave was the strengthening of solvency laws, policies and institutions articulated in the NAIC's "Solvency Policing Agenda". The second, characterized as "Regulatory Reengineering" and beginning in the mid-1990s, focused on improving the efficiency of financial and market regulatory activities. The third wave, labeled "Modernizing Insurance Regulation" or "State Regulation 2000", has emerged out of the second as a more intensive effort to enable regulators and the insurance industry to remain viable in the new financial economy. This section briefly summarizes the second wave initiatives and discusses the third wave in greater detail.

Regulatory Reengineering

Dealing with 55 different market regulatory requirements in the various states and territories is costly for multistate insurers and agents. With the implementation of many solvency reforms and a change in the political climate, the NAIC moved its focus to streamlining regulatory processes and eliminating unnecessary impediments to market

²⁹ The NAIC established a special Internet Working Group to examine these issues. In 1997, the working group issued a report and delegated various EC-related issues to the appropriate NAIC committees,

transactions. These initiatives were intended to make it easier for agents and insurers to operate on a multistate basis while preserving individual state regulatory authority. State insurance commissioners understood that these reforms would be necessary to retain industry political support for state-based regulation in light of the economic trends discussed above.

The NAIC created a Committee on Regulatory Re-Engineering that identified several areas of attention, including: company admission/licensing; special deposit requirements; countersignature requirements; regulation of commercial lines; rate and form review; and other measures to improve the regulatory services received by insurance consumers. The committee compiled regulatory re-engineering ideas from the various states and the NAIC serves as clearinghouse for this information. The committee issued a white paper in 1998 presenting its analysis and recommendations for further action by the relevant NAIC committees and the individual states.

The most important developments to emerge from these efforts was the “deregulation” of rates and forms for commercial insurance, expedited insurer licensing processes, and progress on creating a national system for agent licensing. A number of states have implemented reforms in these areas as well as others to streamline regulatory processes. At the same time, some states have dragged their feet and the pattern of reform has been uneven among the states. State-based industry interest groups have resisted reforms that would ease multi-state transactions. Disappointment in the realization of the vision of regulatory reengineering and the GLBA has prompted a renewed effort to promote a more ambitious and comprehensive set of regulatory initiatives. The objective are to fit insurance

according to their areas of responsibility.

into the new scheme for financial and regulation and to “speed” insurance products and services to the marketplace.

GLBA and Modernizing Insurance Regulation

Financial services modernization and the GLBA are compelling insurers and their regulators to adjust to a new institutional and market framework. Insurance regulation must be integrated with the other areas of financial regulation to implement the functional scheme envisioned in GLBA. Also, insurers and other financial institutions that sell insurance, face increased competition, both domestically and internationally. The new market environment increases the opportunity cost of certain state-based regulatory requirements for insurers and intermediaries. This is pressuring the NAIC and the states to adopt a number of efficiency-oriented reforms that will enable insurers to remain viable competitors.

The NAIC has made this reform program its top priority with an aggressive agenda and nine high level working groups to focus on different initiatives. Some of these initiatives are directly driven by provisions in the GLBA that allow the NAIC and the states the opportunity to establish certain institutions that will meet the requirements of the Act; if they fail to do so then the Act provides for alternative industry-based or federal entities to achieve the desired objectives. Other NAIC initiatives are not required by the GLBA per se, but are recognized as needed components of a comprehensive reform program. It should be noted that Congress did not adopt all of the amendments favored by the NAIC. Hence, the NAIC program also seeks to address perceived deficiencies in the GLBA.

The GLBA-directed issues being addressed by the working groups include:

- the definition of insurance under the GLB Act and determining what is an insurance product;

- bank and insurance company affiliations;
- agent licensing;
- consumer protection rules;
- the interaction of state law with the federal rules issued pursuant to the GLB Act, and the 13 safe harbors for state consumer protection rules directed at bank sales of insurance; and
- the GLBA's privacy requirements.

The NAIC further established an Implementation/Functional Regulation Coordinating Working Group to oversee state activities related to GLBA and coordination with federal regulators. This is an important addition as past NAIC initiatives have often been undermined by the failure of the states to adopt them. Here, the states' mutual interests are more critical as the failure of some states to carry out their part could doom the authority of all states. As noted above, regulating institutions and new products that combine insurance, banking, and securities will require communication and cooperation among the agencies responsible for supervising each of these different industries. The NAIC performs an important liaison role between state insurance regulators and the Federal Reserve Board, the Office of Thrift Supervision (OTS), and the Office of the Comptroller of the Currency (OCC).

However, the NAIC efforts extend beyond what is expressly required by the GLBA. This is reflected in its adoption of a *Statement of Intent to Modernize Insurance Regulation* in March 2000. The Statement reaffirms the regulatory goal of consumer protection but also recognizes "that consumers as well as companies are well served by efficient, market-oriented regulation of the business of insurance." The additional initiatives embodied in the Statement and working groups' agenda include:

- speeding products to market by removing unnecessary approval requirements, making state standards more uniform, and giving greater deference to approval of an insurers' multistate products by its domiciliary regulator;
- commercial lines deregulation;
- market conduct regulation reform;
- facilitating insurance electronic commerce; and
- exploring reforms that could ease state licensing impediments for multistate insurers.

VI. Concluding Observations

State insurance regulation is at a critical juncture and its ability to satisfy various stakeholders and interest groups will determine its future. It is true that some insurers and other interest groups prefer a federal regulatory system. However, there is a sufficiently large constituency that continues to favor state regulation or would be willing to support state regulation if desired reforms are implemented. Congress also is not enthusiastic about a complete federal assumption of insurance regulation at the present time if it can be avoided. Hence, the states and the NAIC have a window of opportunity in which to restructure and preserve state insurance regulation, at least for the foreseeable future.

Of course, as with any compromise, the objective is to achieve sufficient political support among groups with different interests and preferences. The need to build consensus among the different groups will challenge the NAIC as it deliberates on the specific details of the initiatives described above. For example, single-state insurers and agents will likely resist changes that would effectively create a uniform or national regulatory system. On the other side, large multistate insurers and agents will throw their support to federal regulation if the states fail to remove significant impediments to

interstate commerce. It is reasonable to expect that some reforms will be adopted and implemented. Whether the NAIC and the states will move far enough and fast enough to retain their regulatory authority over insurance remains to be seen.

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Table II.1
Property-Liability Insurance Trends
1960-1998

	1960	1970	1980	1990	1995	1998
No. of Companies	na	2,800	2,953	3,899	3,358	3,319
Assets (\$M)	30,132	55,315	197,678	556,314	765,230	908,767
Revenues (\$M)	15,741	36,524	108,745	252,991	296,637	321,433
Net Premiums Written (%)	95.1	94.3	89.6	86.9	87.6	87.6
Investment Income (%)	4.9	5.7	10.4	13.1	12.4	12.4
Market Share of 10 Largest Insurer Groups (%)	34.4	36.8	38.2	40.3	40.0	43.9
Premiums/Surplus (%)	125.5	210.2	183.4	157.6	113.0	84.5
Return on Net Worth (%)	na	11.6	13.1	8.5	9.0	9.2

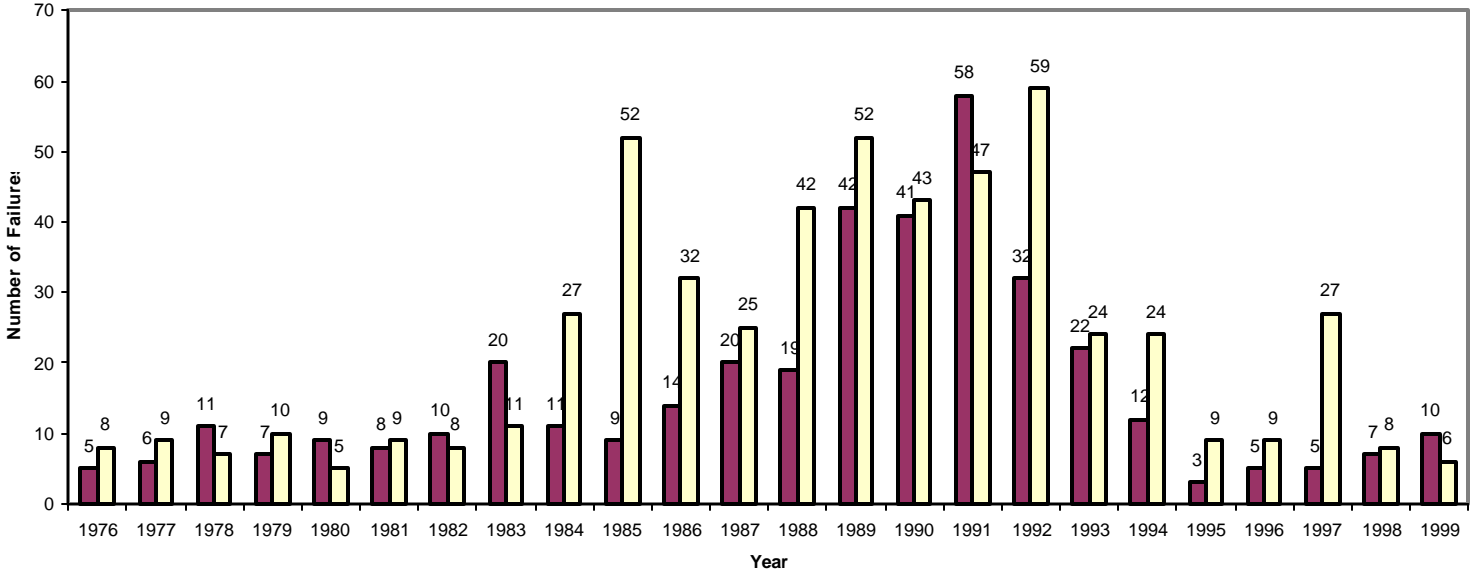
Source: NAIC, A.M.Best, and Insurance Information Institute

Table II.2
Life-Health Insurance Market Trends
1950-1998

	1950	1960	1970	1980	1990	1995
No. of Companies	649	1,441	1,780	1,958	2,195	1,715
Assets (\$M)	64,020	119,576	207,254	479,210	1,408,208	2,143,500
% 10 Largest Insurer Groups	na	62.4	57.7	52.5	36.7	36.1
Income (\$M)	11,337	23,007	49,054	130,888	402,200	512,198
% Life Insurance Premiums	55.1	52.1	44.2	31.2	19.1	19.3
% Annuity Considerations	8.3	5.8	7.6	17.1	32.1	31.2
% Health Insurance Premiums	8.8	17.5	23.2	22.4	14.5	15.7
% Investment Income	18.3	18.7	20.7	25.9	27.8	27.4
% Other	9.5	5.8	4.4	3.3	6.5	6.4
Reserves (\$M)	54,946	98,473	167,779	390,339	1,196,967	1,812,325
% Life	na	71.9	68.8	50.7	29.1	28.2
% Annuities	na	27.2	29.1	46.5	68.1	68.3
% Health	na	0.9	2.1	2.8	2.8	3.5

**Figure II.1
Insurance Company Failures**

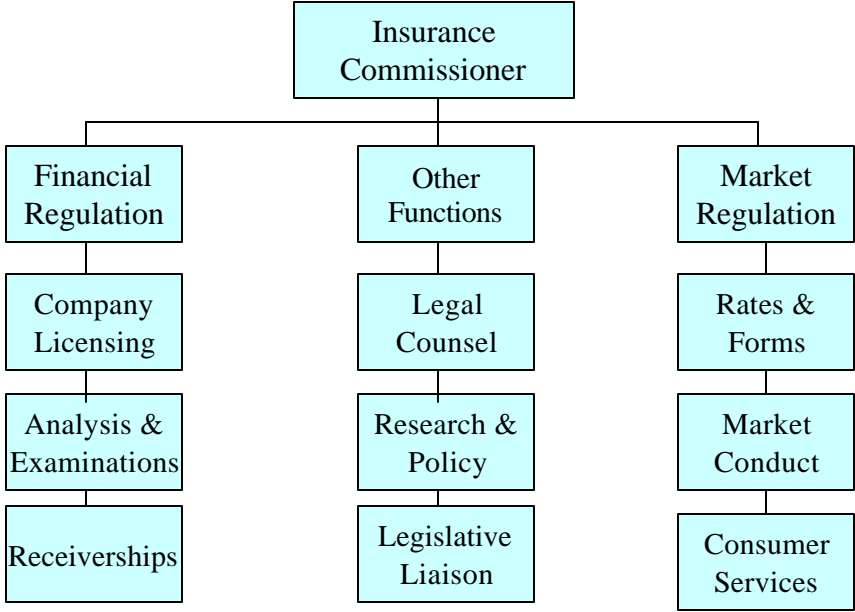
1976-1999



Source: A.M. Best and NAIC



**Figure III.1
Organization of Regulatory Functions**



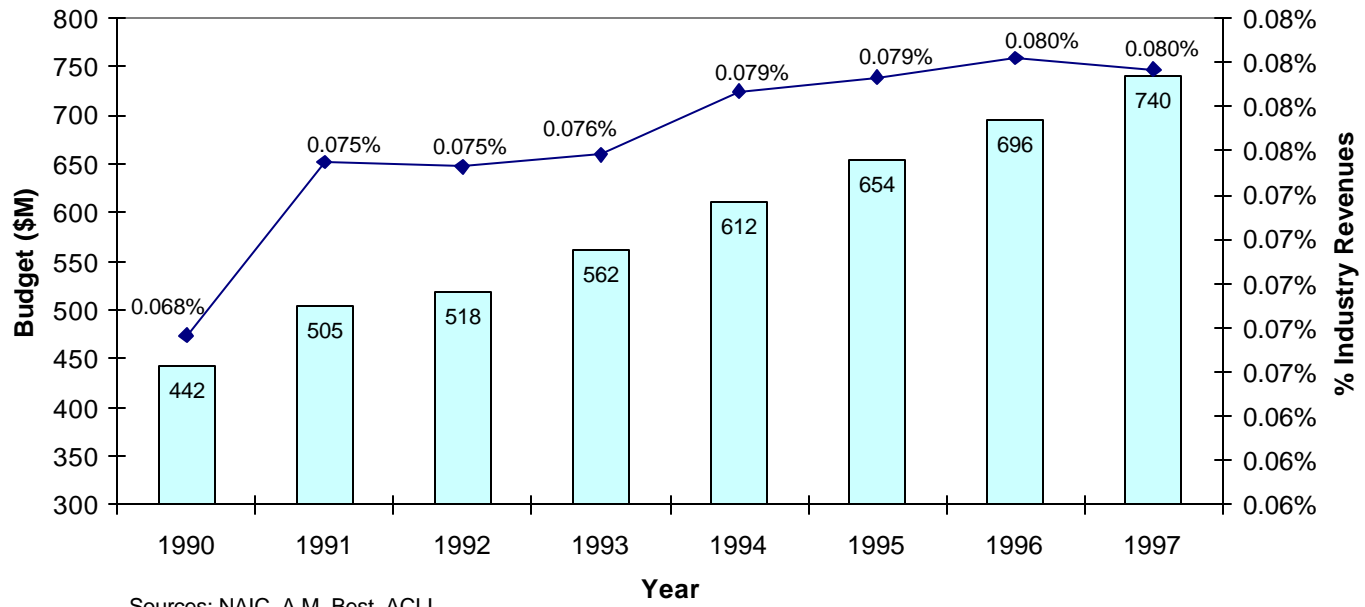
**Table III.1
Insurance Department Resources in 1998**

State	Number of Insurers		Direct Premiums Written	FY 2000 Budget	FTE Staff
	Domestic	Licensed Non-Domestic			
Alabama	75	1,254	\$11,139,322,622	\$11,039,247	66
Alaska	9	1,095	1,617,972,760	4,396,600	50
American Samoa	na	na	2,517,242	na	na
Arizona	487	1,554	13,604,633,296	5,290,000	140
Arkansas	76	1,442	5,543,918,491	7,552,008	106
California	242	1,276	77,345,881,811	129,896,000	1,178
Colorado	92	1,465	13,039,313,971	8,169,980	93
Connecticut	138	1,020	17,662,092,363	17,637,698	172
Delaware	148	1,429	2,974,490,000	4,729,400	68
District of Columbia	23	1,307	9,257,443,005	6,990,000	65
Florida	655	1,886	52,008,793,320	64,421,273	1,072
Georgia	111	1,487	19,486,879,342	16,811,314	167
Guam	na	na	83,868,264	na	na
Hawaii	88	965	4,444,459,000	7,713,700	52
Idaho	29	1,459	2,668,144,277	5,246,500	65
Illinois	474	1,499	43,547,704,642	26,786,500	383
Indiana	207	1,670	15,142,253,474	5,332,810	89
Iowa	226	1,399	8,857,417,765	6,701,010	92
Kansas	55	1,566	7,512,079,709	8,267,487	165
Kentucky	70	1,450	9,717,020,368	14,639,500	181
Louisiana	167	1,507	15,051,535,298	18,406,095	275
Maine	32	881	3,855,107,322	5,943,055	79
Maryland	97	1,397	12,818,998,667	17,032,484	244
Massachusetts	103	1,169	30,158,119,849	9,590,307	167
Michigan	149	1,348	36,994,775,841	17,399,300	127
Minnesota	206	1,246	14,245,267,794	9,626,370	107
Mississippi	87	1,459	4,877,260,256	6,751,690	114
Missouri	293	1,851	16,927,880,413	13,037,820	220
Montana	27	1,419	1,826,993,777	2,544,488	43
Nebraska	130	1,449	4,895,942,754	6,415,187	93
Nevada	35	1,446	4,503,294,741	4,673,194	65
New Hampshire	53	799	2,743,706,781	4,034,492	65
New Jersey	108	1,066	24,777,652,883	58,745,000	286
New Mexico	22	1,505	3,787,211,000	3,911,200	81
New York	531	850	50,667,679,957	98,521,000	903
North Carolina	111	1,221	22,381,823,966	33,003,249	394
North Dakota	50	1,388	2,044,371,833	2,906,647	46
Ohio	291	1,485	33,267,631,835	24,972,049	274
Oklahoma	121	1,486	10,378,235,946	8,222,872	118
Oregon	117	1,515	9,281,034,202	7,024,181	97
Pennsylvania	348	1,338	50,404,023,949	20,092,000	298
Puerto Rico	52	329	4,156,882,000	5778000	93
Rhode Island	33	1,097	3,728,143,425	3,416,180	49

South Carolina	51	1,450	7,738,315,185	7,109,525	109
South Dakota	60	1,442	2,003,700,597	1,295,371	25
Tennessee	121	1,536	16,301,451,760	6,181,100	90
Texas	559	1,526	55,403,894,350	47,428,757	1,003
U.S. Virgin Islands	10	197	178,786,474	1,844,393	16
Utah	52	1,484	5,415,816,123	4,622,900	70
Vermont	357	857	1,915,156,479	4,621,865	50
Virginia	85	1,371	18,673,950,428	16,298,961	195
Washington	80	1,324	15,022,140,915	13,136,000	159
West Virginia	23	1,264	3,580,803,121	4,483,578	72
Wisconsin	353	1,490	17,626,613,027	10,688,900	112
Wyoming	4	1,234	1,111,283,088	1,303,843	25
Total	8,123		\$824,401,691,758	\$852,683,080	10,366
Mean	153	1,314	\$14,989,121,668	\$16,088,360	196

Source: NAIC 1998 Insurance Department Resources Report

Figure III.2
Insurance Regulatory Expenditures



Sources: NAIC, A.M. Best, ACLI

Table IV.1
State Fixed Minimum Capital-Surplus Requirements
Multiple Line Stock Companies (New Insurers)
1997

State	Property-Casualty	Life-Health
Alabama	1,250,000	2,000,000
Alaska	6,000,000	2,500,000
Arizona	1,500,000	600,000
Arkansas	1,500,000	1,000,000
California	600,000	5,000,000
Colorado	2,000,000	1,500,000
Connecticut	4,000,000	3,000,000
Delaware	750,000	550,000
District of Columbia	600,000	1,500,000
Florida	5,000,000	2,500,000
Georgia	1,500,000	1,500,000
Hawaii	3,750,000	3,750,000
Idaho	2,000,000	2,000,000
Illinois	2,000,000	2,000,000
Indiana	1,750,000	1,400,000

Figure IV.1
Ratio of TAC to ACL RBC in 1999

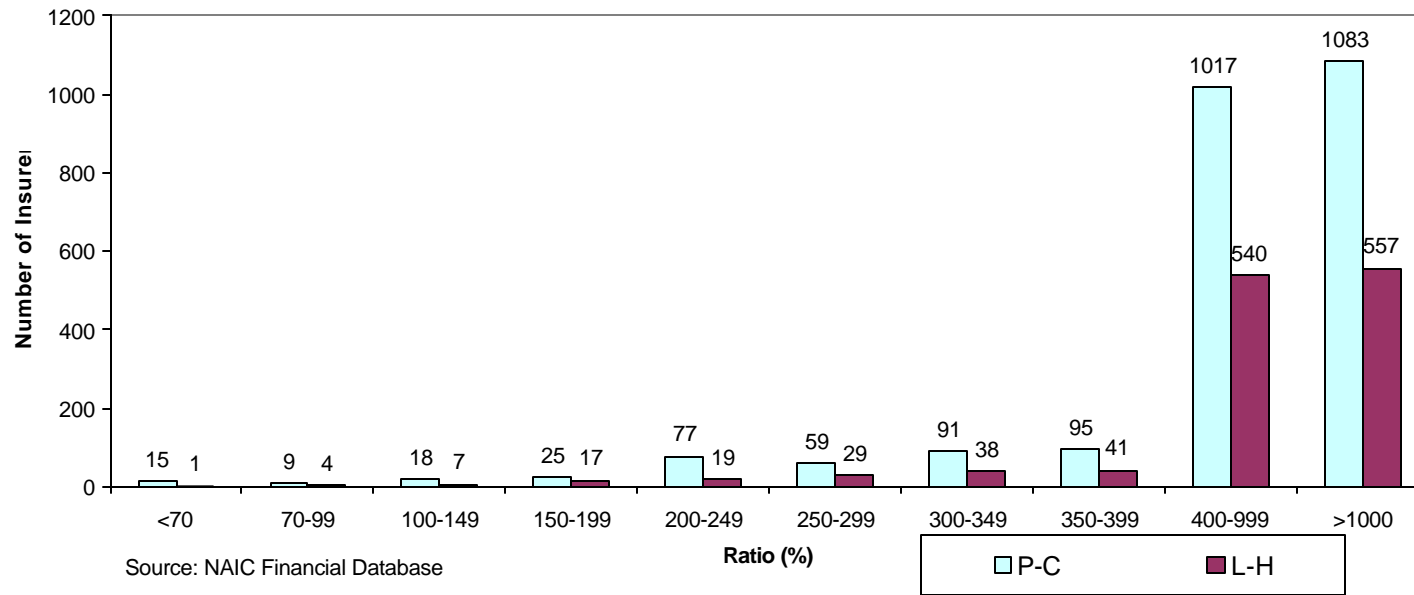
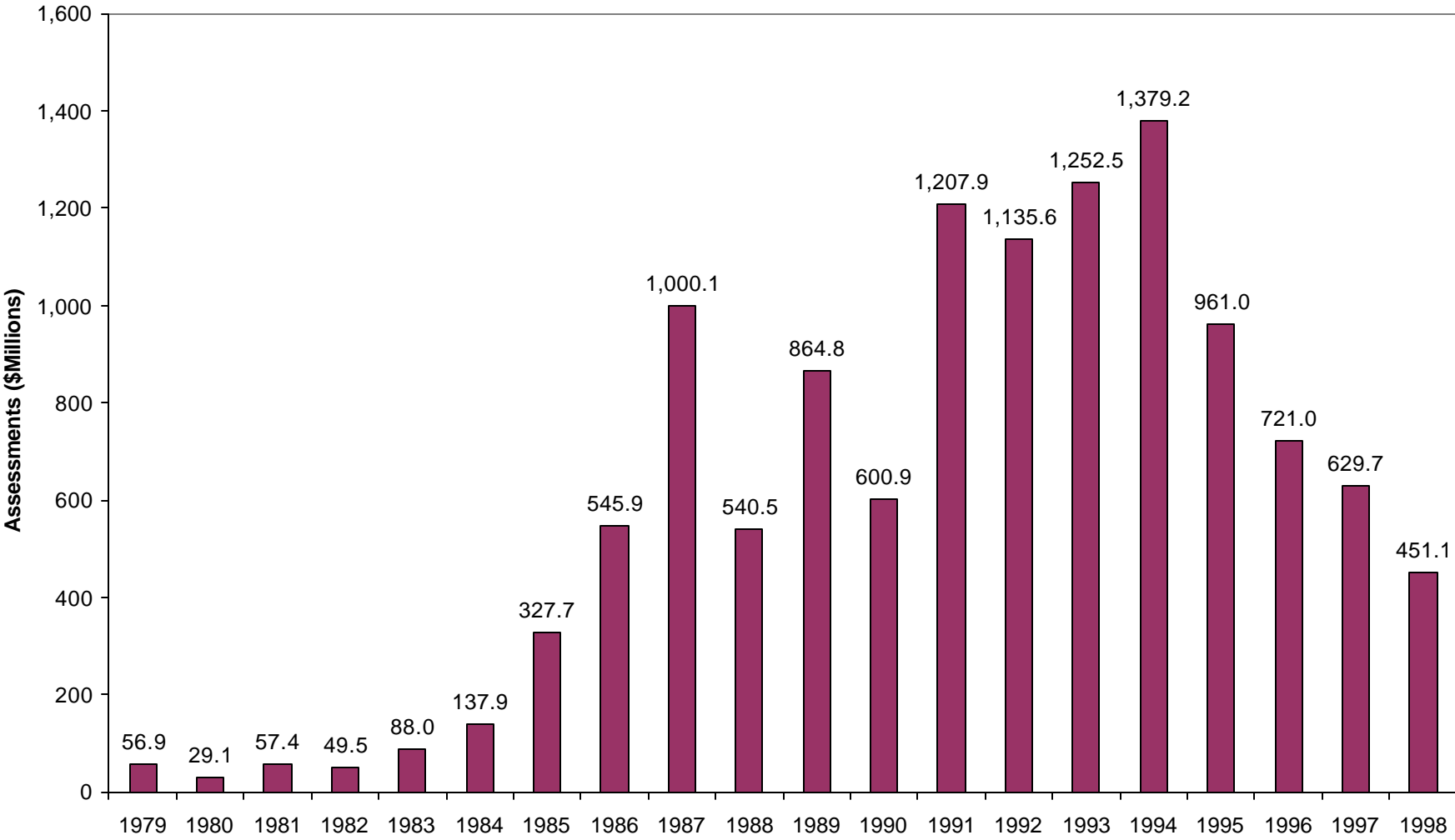


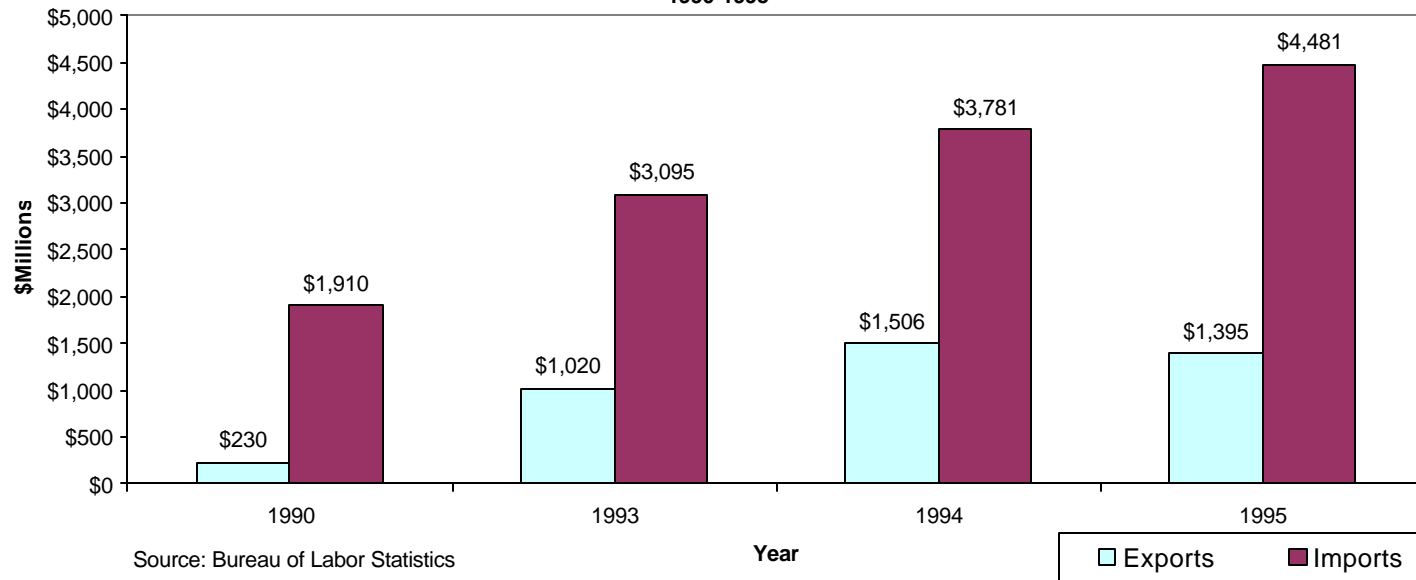
Figure IV.2
Insurance Guaranty Association Assessments
1979-1998



Source: NCIGF and NOLHGA

Figure V.2
International Transactions U.S.

1990-1995



Source: Bureau of Labor Statistics

Figure V.3
Forecast of Internet Insurance Sales

