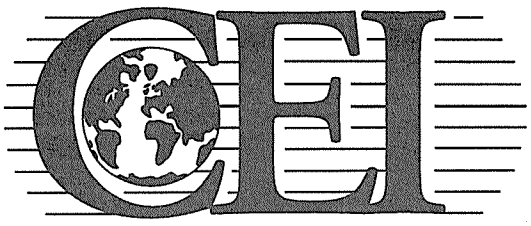

COMPETITIVE ENTERPRISE INSTITUTE

INSURANCE REFORM PROJECT

THE BUSINESS AND REGULATION OF INSURANCE

A PRIMER

Catherine England

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EXECUTIVE SUMMARY

Most adults are familiar with what insurance companies do. In our personal lives and at work, we benefit from a wide variety of insurance products—auto insurance, property insurance, life insurance, and health insurance, to name a few. But few consumers of insurance products understand how insurance companies provide financial protection against accidents and illnesses. This lack of information can lead to frustration and misunderstandings if premiums increase or claims are refused.

This primer is intended to remove some of the mystery from insurance markets and insurance company operations. It describes the role insurance companies play in the economy. It also provides basic information about the insurance industry's size and the fundamentals of industry operations. Finally, the primer reviews insurance company regulation.

The value of insurance to policyholders is determined by the probability of an insured-against event occurring and the expected financial loss associated from the event. If an insurer attempts to charge policyholders premiums far in excess of their expected losses, individuals will refuse to purchase the insurance because the coverage provided is not worth the cost. When individuals can choose not to purchase insurance, insurance companies will be forced to base premiums on expected claims costs. As a result, private insurance companies in a competitive market typically do not "spread" risk in the sense of charging lower risk policyholders premiums that help cover the claims costs of higher risk insurance customers. Expected claims costs account for both the general level of insurance premiums and the differences in insurance premiums charged to different groups of policyholders.

The insurance industry is regulated by the states. There is no federal regulation of insurance. Each state is largely responsible for monitoring the solvency of insurance companies headquartered there. Guaranty funds, which protect claimants in the event of an insurance company's failure, are also operated by the states. Regulation of insurance contracts is typically undertaken by the state in which the policyholder resides. Contract regulation addresses the premiums charged and/or the terms of the contract. Insurance policies sold to individuals generally attract more regulatory attention than do commercial policies.

The state-based insurance regulatory system has been criticized (especially by federal lawmakers) because of differences that exist among the states in terms of the resources devoted to insurance regulation and the stringency with which various rules are applied. It is worth noting, however, that the insurance industry survived the economically tumultuous 1980s in better shape than did the federally regulated savings and loan or banking industries.

Important questions remain about state insurance regulation, however. For example, how far should regulators go in identifying appropriate investments for insurance companies? State-imposed limits on the premiums that insurance companies can charge also cause serious problems for some insurance companies. Rate regulation has, in some cases, led to reduced availability of insurance, making it difficult for consumers to find coverage they want to purchase.

The largest insurance companies in the country have substantial financial assets at their disposal. This creates the temptation to view insurers as "deep pockets," capable of addressing society's financial ills. It is important to remember that the largest insurance companies also have substantial potential liabilities. Insurance companies required today to pay unexpected claims because of legal or regulatory interpretations of contractual terms that are overly generous to policyholders may not have the resources needed tomorrow to meet claims arising from other policyholders.

Furthermore, insurance companies are not charitable organizations. They are in business to make a profit. When regulatory policies prevent insurers from earning profits on a line (or lines) of insurance, the supply of the unprofitable line of insurance will be reduced. Insurance companies must answer to their stockholders just as companies do in any other industry. If insurance company owners can earn more money in another industry, they will take their capital elsewhere.

The development of private insurance markets benefits society generally. Businesses and individuals with insurance need not set aside funds for unforeseen contingencies. They can invest in other activities. The claims-based premiums charged by insurance companies also provide important information about the risk associated with different activities and how specific risks can be reduced.

Risk-based pricing also allows premiums to respond to the behavior of individuals. People who take care to make fewer claims should not be required to pay the same premiums as individuals who make more frequent claims on the system. It is not surprising that compensation systems without risk-sensitive pricing generally see claims costs rise as claims increase in number and average size.

Private insurance plays a role in the economic body similar to the nervous system in the human body. Just as a person's nervous system warns of danger through sensing pain and discomfort, a well-functioning insurance market sends signals to economic actors about riskier and less risky activities. Regulatory policies that interfere with the "insurance" process interfere with the "pain" signals insurers would normally send. When insurance premiums do not reflect differences in risk, society may not realize it is being "burned" until considerable damage has been done.

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A PRIMER

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INTRODUCTION

Most of us form our opinions about insurance companies based on what they do for us. Consumers and businesses all use insurance to protect their financial health and physical assets. In times of trouble, insurance companies are there. But insurance buyers (and their political representatives) also have questions about how insurance works. Why do some policyholders pay less for their insurance than others? Why do insurance companies sometimes limit what they will pay on insured losses? What do insurance companies do with all the money they collect?

This primer is intended to remove some of the mystery from insurance markets and insurance company operations.

This primer is intended to remove some of the mystery from insurance markets and insurance company operations. Section I describes the economic role of financial markets generally, and insurance companies in particular. Section II attempts to provide a working definition of insurance and describe what constitutes an insurable risk. It also supplies some basic information about the industry. Section III focuses on industry operations. This section describes how premiums are set and discusses the different types of coverage that different insurance companies provide. It also identifies the risks that insurers face. Section IV describes the regulatory system under which insurance companies operate. Finally, Section V summarizes the findings of the primer.

This paper provides a broad overview of the business and regulation of insurance. To function efficiently and provide consumers and the overall economy with the full benefits of insurance, private insurance markets must exhibit three characteristics. Premiums must be risk-based. Insurance markets must be competitive. Insurance companies must be allowed to earn (but they should not be guaranteed) profits. These elements will develop naturally in the absence of government roadblocks. Regulations that undermine any of these elements harm both insurance consumers and society in general.

I. INSURANCE AND THE U.S. ECONOMY

Financial markets and institutions solve several basic problems faced by households and businesses. The most fundamental and pervasive one is the cash flow timing problem. Rarely does income arrive just when we are ready to spend it. Even families operating on the most basic of budgets often find income arriving ahead of — or behind — rent and utility bills, trips to the grocery store, or visits to the doctor. Families also generally decide to set aside money today to spend later for their children's education or for retirement. A family seeking to buy a car or a house wants to spend money now in anticipation of future earnings.

Businesses also use financial markets to smooth their cash flows. As with households, businesses sometimes build cash reserves (they save) in anticipation of future expenses: a major expansion, repayment of a bond issue, or the need to meet pension obligations to employees. In other cases, businesses borrow to purchase inventory or undertake new projects. Income generated by these financed activities is then used to repay the loan.

In return for payment of a regular and predictable premium under an insurance contract, households and businesses can transfer to insurance companies part of the financial risk associated with insured-against events.

Financial markets address such cash flow timing problems. Financial institutions place themselves between borrowers and savers, gathering funds from savers (or investors) and lending them to borrowers.[1] Both groups benefit. Savers earn income on their unused funds, and borrowers have access to money with which to buy new cars, purchase houses, or expand their businesses. Imagine, by contrast, a world in which everyone had to accumulate for himself all the money that he needed to pay for everything he purchased. Many new businesses would never get started. Families and individuals would enjoy fewer opportunities. By enabling savers to put their financial resources to work rather than leaving them idle, financial markets improve the economic condition of both savers and borrowers. The end result is a higher level of economic growth and wealth than would occur otherwise.

Cash flow timing problems are particularly troublesome in the wake of unexpected losses due to events such as accidents, major illnesses, fires, hurricanes, floods, or tornadoes. It is to cushion the financial consequences of these types of events that individuals and firms seek the services of insurance companies, the particular types of financial institutions that provide insurance products.

In return for payment of a regular and predictable premium under an insurance contract, households and businesses can transfer to insurance companies at least part of the financial risk associated with insured-against events. Substituting a certain premium for uncertain (both in timing and

[1]In this context, "saving" is anything households do that does not involve current spending. In other words, "savings" may be placed in a traditional savings account, in a stock or bond mutual fund, in a pension fund, or in other types of investment assets.

amount) losses allows households and businesses to use more efficiently their financial resources. Rather than establishing contingency funds for catastrophic expenses (e.g., a house fire or a product liability suit) families and businesses can use their money for other purposes (e.g., to invest in a college education or take advantage of new business opportunities).

Insurance companies also contribute to the flow of funds from savers to borrowers. Traditional permanent life insurance products fit most clearly the saving/borrowing model described above.[2] With permanent life insurance policies, insured individuals pay premiums to the insurance company in return for two benefits. The first one is the "insurance" aspect. When the insured individual dies, the beneficiary under the policy receives a cash payment. The other benefit of a permanent life policy is that it also builds cash value over the life of the contract, just as a savings account grows in value over time.[3] Policyholders can borrow against the value of their policies, or they can "cash in" their life insurance policies.

The investments of life insurance companies represent an important source of funds for U.S. businesses.

Life insurance companies are able to provide rising cash values on permanent life insurance products because life insurers take the funds they receive as premiums and invest them in government bonds, corporate securities, mortgages, and real estate. In 1993, insurance companies earned some $124.2 billion from their investments, representing 26.6 percent of their total income.[4]

The investments of life insurance companies represent an important source of funds for U.S. businesses. Net new investments by life insurers in U.S. money and capital markets in 1993 amounted to $143.7 billion, making life insurance companies the third-largest private, domestic, institutional source of funds.[5] Life insurers provided 18.4 percent of the new money flowing into domestic money and capital markets in 1993, up

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[2]Life insurance companies offer two broad types of life insurance policies: permanent life policies and term life insurance. The latter provides coverage for a specified period and pays only a death benefit. It includes no savings component. For a more complete description of the types of permanent life policies, see the discussion of life insurance companies in Section III below.

[3]Not everyone agrees with this characterization of traditional permanent life insurance policies. Warren Wise, general counsel for Massachusetts Mutual Life Insurance Company, argues that the accumulation of cash value in the early years of a permanent life insurance policy allows the insurance company to build reserves against greater risks in later years. Level premiums over the life of the policy are thus made possible. See Warren R. Wise, "Discussion," in *The Financial Condition and Regulation of Insurance Companies*, Richard W. Kopcke and Richard E. Randall, eds. (Boston: Federal Reserve Bank of Boston, 1991), p. 231.

[4]*1994 Life Insurance Fact Book* (Washington: American Council of Life Insurers, 1994), p. 68.

[5]Ibid., p. 83. Among domestic institutions, only commercial banks (with $145.3 billion in net new investments) and mutual funds ($292.8 billion in net new investments) invested more. Ibid., p. 85.

from just 8.9 percent as recently as 1985.[6] Life insurance companies held $729.7 billion in corporate bonds and $229.1 billion in mortgages at the end of 1993.[7] These holdings represented about one-third of all corporate bonds and some 30 percent of the funding for commercial mortgages.[8] The life insurance industry's investments in government securities, corporate securities, mortgages, and real estate amounted to $1,649 billion in 1993.[9] Life insurers thus play an important role in funneling money from savers to borrowers.

Property/casualty insurance companies also invest the premiums they receive in the nation's money and capital markets. Property/casualty insurance companies invested $533 billion in 1993 in government bonds and corporate securities, among other things, and they earned $32.6 billion in investment income.[10] Property/casualty insurers collect almost as much in premiums each year as life insurance companies do ($242 billion for property/casualty companies compared to $251 billion for life insurers),[11] but the different nature of the property/casualty business prevents its companies from matching the sizable investments of life insurers. Property/casualty companies face both more frequent and less predictable claims on their policies than do life insurers.

Health insurance benefits are typically paid out in smaller, more frequent claims than other types of insurance benefits.

Providing health insurance creates still fewer opportunities for long-term investments. Health insurers collected more than $281 billion in premiums in 1992, but health insurance itself is a "cash flow" business.[12] Health insurance benefits are typically paid out in smaller, more frequent claims than other types of insurance benefits. This leaves health insurance providers with few funds to invest for any substantial length of time.

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[6]Ibid.

[7]Ibid., p. 84.

[8]Scott E. Harrington, "Policyholder Runs, Life Insurance Company Failures, and Insurance Solvency Regulation," *Regulation*, Spring 1992, p. 27.

[9]*1994 Life Insurance Fact Book,* p. 84.

[10]*The Fact Book 1995: Property/Casualty Insurance Facts* (New York: Insurance Information Institute, 1995), pp. 18, 20. Income from investments turned an underwriting loss (claims paid exceeded premiums collected) into a profit from total operations. For a more complete discussion, see Section III below.

[11]Ibid., p. 5.

[12]Ibid. The 1992 data for health insurers that is available in *The Fact Book 1995* includes premiums paid to commercial insurers, Blue Cross and Blue Shield, self-insured companies, and health maintenance organizations. Some health insurance companies also offer life insurance and annuity products. It was through investments associated with the latter types of products that "health insurers" were recently criticized for investing in tobacco companies. See David S. Hilzenrath, "Health Insurance Firms Found to Often Hold Tobacco Company Stocks," *Washington Post*, July 7, 1995, pp. C1, C2.

II. SOME BASICS

Insurance contracts transfer part or all of the financial risk associated with a specified event (e.g., a house fire) from the policyholder to the insurance company. Why do homeowners pay someone to bear the risk that their houses will catch fire rather than saving their money and taking their chances? Most homeowners, after all, will never make a claim against their fire insurance policies.

A homeowner tempted to self-insure might begin by finding out the frequency with which houses similar to hers catch fire. She might then set aside an amount each year equal to the probability of such a house fire times the value of the house. But such protection is incomplete. What if a fire occurs in the early years of the savings program? An individual cannot self-insure very effectively against the probability of such an event, because the homeowner whose house does catch fire must bear the entire loss herself.

The larger the group of similar houses insured, the more accurate the insurer's statistical analysis is likely to be in predicting how many of the insured houses will catch fire.

Although knowing the probability of a house fire cannot help an individual homeowner, a company offering financial protection to a large number of homeowners can use that information to its advantage. Insurance companies pool the risks represented by lots of similar homeowners and collect premiums from all of them to cover the expected number of fires for the group. The insurance company will not know, any more than the individual homeowners do, which particular houses will catch fire during a given year. However, by carefully studying what happens as homes age, how weather patterns in different areas affect house fires, and past experience regarding the number of houses that catch fire each year, an insurance company can predict fairly accurately how many fires will occur among houses with similar characteristics. Information about changing construction and fire fighting techniques may also influence the insurer's expectations. The larger the group of similar houses insured, the more accurate the insurer's statistical analysis is likely to be in predicting how many of the insured houses will catch fire.

This process of pooling similar risks to provide insurance is sometimes referred to as "spreading" risks. But it is important to distinguish between insurance companies "pooling" similar risks and "spreading" risk, as the latter term is generally understood outside the insurance industry.

Typically, when people outside the industry think about spreading risks, they imagine individuals with a low probability of loss helping to pay for the losses suffered by others. By contrast, insurance companies generally attempt to assign each policyholder to a risk pool in which all other policyholders face a similar probability of loss. No one knows which of the individual policyholders will suffer a loss, but by sorting individual customers into groups with similar characteristics, insurers can be fairly

certain of the number of claims they are likely to face from each group in a given year. This sorting and pooling process allows insurers to charge more appropriate premiums for policyholders in each particular group (i.e. premiums that closely reflect the probability of loss that any individual insurance customer faces).

Consider what would happen if insurance companies did not sort risks. Assume an insurer set out to provide one-size-fits-all life insurance. The insurer would charge a single premium based on the average life span of the population as a whole. This insurance policy would spread the risk of dying to everyone within its insured group of customers.

Imagine the reaction of different types of potential clients to such an insurance product. Sicker and/or older individuals would view the insurance premium as a good deal and flock to the egalitarian insurance company in large numbers. Meanwhile, younger, healthier individuals might well be reluctant to purchase such coverage. The expected value of the insurance policy to the healthier half of the population would be less than the premium charged by the one-size-fits-all insurer.

The economic value of insurance to an individual policyholder is determined primarily by the probability of the insured-against event occurring times the expected financial loss associated with the event.

The economic value of insurance to an individual policyholder is determined primarily by the probability of the insured-against event occurring times the expected financial loss associated with the event. Policyholders may pay something extra for the peace of mind provided by insurance, or because they are unsure of the probability of an undesirable event occurring, but there is a limit to a consumer's willingness to pay. Premiums can rise to the point where a rational consumer will judge that insurance is "just not worth it."[13] The value of insurance to a consumer remains grounded in the probability and size of a potential financial loss.

The egalitarian insurer would not attract a cross-section of the population. Its policyholders would include a disproportionate number of individuals with relatively short life expectancies. As a result, premiums based on general population averages would not cover claims costs, and the insurance company would lose money. If the insurer raised premiums to cover his losses and continued to charge everyone the same price, the insurer again would drive away the healthiest individuals among his clients. This would further increase the average expected claims costs for remaining customers. The egalitarian insurance company would continue losing money as it insured an ever-smaller, increasingly risky group of clients.

This process in which insurance companies drive low-risk individuals out of the insurance market by overcharging them is called "adverse selection." Adverse selection is a potentially serious problem for insurers. When insurance companies cannot separate their clients into

[13]This occurs frequently. We see examples of it with uninsured drivers and with individuals who choose not to purchase renters' insurance.

appropriate risk pools and charge premiums that reflect an individual policyholder's probability of loss, relatively low-risk clients will exit the market. Individuals representing greater risks will be attracted by policies that, for them, are underpriced. Insurers will be left with an evermore risky pool of insured risks. Such markets are unstable, and they are in danger of eventually collapsing when insurance companies find that premiums cannot keep pace with rising claims costs.

To avoid adverse selection, insurers sort clients into risk groups and charge differentiated premiums that more accurately reflect the value of insurance to individuals within different groups. Given a choice, a healthy 25-year-old woman will not buy life insurance if she is asked to pay a premium that reflects the risk associated with providing life insurance to a sickly 70-year-old man. Even a monopoly insurer will separate individuals into risk groups as long as consumers have the choice not to buy insurance.

Given a choice, a healthy 25-year-old woman will not buy life insurance if asked to pay a premium that reflects the risk associated with providing life insurance to a sickly 70-year-old man.

Government officials are familiar with this dynamic. Government insurance programs often are marked by uniform premiums, but governments have powers not available to private insurance companies.[14] Either government-run insurance programs use taxpayers to subsidize the entire insured group (e.g., flood insurance) or the government requires everyone to participate (e.g., the 1993 Clinton administration's health insurance proposal). The Clinton health care plan was committed to the idea of "community rating," through which everyone in the same city or region of the country would pay the same premium. Having set health insurance pricing rules that precluded risk-based premiums, the Clinton proposal also had to include a mandatory participation requirement. But such a universal insurance coverage mandate was also a de facto admission that many Americans would find that the cost of national health insurance would far exceed the benefits.

The problems associated with adverse selection are the reason that private insurance companies do not successfully "spread" risk in the sense of charging lower risk policyholders premiums that help cover the claims

[14]Some federal insurance programs were created in the wake of the Depression as part of the New Deal (e.g., the federal crop insurance program and Social Security). Other government insurance programs arose because the large losses associated with certain kinds of dangerous events (e.g., floods) made it difficult for private insurers to offer coverage at premiums that policymakers considered to be "reasonable." Of course, most government insurance programs represent "insurance" in name only. Federal insurance programs often do not charge premiums that cover expected costs. Administrators of federal programs (usually backed by Congress) often do not strictly enforce policy limits. Finally, even where risk rating occurs, the differences in premiums charged different groups under government insurance programs generally do not fully reflect differences in risks. As a result, most government insurance programs lose money.

costs of higher-risk insurance customers.[15] Assigning individual policyholders to risk groups, however, is not an exact science. Each risk pool will include some policyholders who represent less risk than others. If a competing insurer can find a cost-effective way to identify the lower risk individuals within a particular pool, the company can offer a lower premium to those individuals and attract them away from their current insurer.

This search for better methods to identify and categorize risks is one of the ways in which insurance companies compete. There are limits to this form of competition, however. Two factors determine how narrow the definition of individual risk groups will be: the cost of identifying and verifying characteristics that mark lower risks within an existing pool, and the expected difference in claims costs between low-risk and high-risk members of an existing risk pool.

Consider a hypothetical example. Suppose that all thirty-year-old women drivers are placed in one risk group. Now assume for the moment that actuaries determine that women with naturally curly hair consistently have fewer accidents than women with straight hair. The ability of an insurance company to exploit this discovery would depend on (1) the cost of accurately identifying curly haired women drivers and (2) the expected difference in claims costs between curly haired and straight haired women drivers. If verifying natural curls is relatively easy, and the expected claims costs of curly haired women is significantly lower than the expected claims costs of straight haired drivers, an insurance company could expand its market and increase its profits by selling auto insurance to curly haired women for a lower premium.

Risk-based pricing is important in maintaining the continued availability of a wide range of insurance products.

Of course, curly hair has nothing to do with auto claims costs. Therefore, offering curly haired drivers a lower premium would lead to reduced profits or even losses for the insurance company that mistakenly distinguished between straight haired and curly haired drivers. Similarly, raising the premiums of straight haired drivers because an insurance company executive simply does not like straight haired people would leave the insurance company vulnerable to competition from insurers who make no unjustified distinctions between curly haired and straight haired drivers.

Risk-based pricing is important in maintaining the continued availability of a wide range of insurance products. Imagine that a 45-year-old mother and her 18-year-old son are looking for auto insurance. Faced with distinctly different risks for these two individuals, a private insurance company will write policies covering both drivers as long as the insurer can charge each one a premium that covers expected costs and earns a sufficient profit. If laws or regulations force insurance companies to charge all drivers the same premium, insurers will try to seek out safer drivers and avoid drivers representing more risk.

[15]Proponents of government-mandated cross-subsidies for high risk insurance customers are especially prone to argue that insurance companies should "spread" the costs of providing higher-risk coverage to policyholders who are less likely to make a claim.

Insurable Risks

Insurance is not available for all risks. For an insurance market to develop, insurers must be willing to offer coverage at a price insurance buyers are willing to pay. In short, insurance must be both available and affordable. It helps, therefore, to think about what constitutes insurable risks from the point of view of both insurance companies and consumers of insurance services.

For insurers, "insurable" risks meet several criteria. First, there should be a sufficient number of similar events to allow for a reasonable estimate of probable costs. Insured-against events ideally are independent and distributed randomly among a given population. They also should be accidental and unintentional. Insurance contracts routinely exclude coverage when the policyholder can be shown to have deliberately caused the loss. Arsonists (if discovered) cannot recover from their fire insurance policies.

Insurance will not be purchased in the absence of what individuals perceive as a significant potential loss or financial hardship associated with an insured-against event.

For an insurance market to develop, the insured-against loss must be capable of being identified and measured in a timely fashion. The market for environmental insurance almost collapsed during the 1980s because of rapidly changing legal definitions of what constituted an "insured-against event." Some courts construed contractual coverage for "sudden and accidental" spills of hazardous materials as applying to long-term gradual contamination, especially when the courts accepted policyholders' arguments that the contamination was "neither expected nor intended." Insurance companies have thus been required to pay for clean-up costs against which they had not collected premiums or established reserves.[16] The difficulties facing insurers were further compounded by the fact that, in many cases, contaminations were identified by the courts as being insured-against events years after the expiration of the policies on which claims were based.

A soundly managed insurance company also will want to produce a portfolio of diversified risks. Put another way, the insurer will want to avoid a large pool of insured risks subject to "simultaneous destruction." Eleven small insurers with a high concentration of homeowners insurance policies in South Florida did not survive Hurricane Andrew, because too many of their policyholders brought sizeable claims all at the same time.

On the other hand, insurance customers do not purchase insurance for every conceivable risk. Insurance will not be purchased in the absence of what individuals perceive as a significant potential loss or financial hardship associated with an insured-against event. Individuals often do

[16]Court battles continue over Superfund clean-up costs and the share that insurance companies will pay. See Katherine Probst, Don Fullerton, Robert Litan, and Paul Portney, *Footing the Bill for Superfund Cleanups: Who Pays and How?* Washington, D.C.: The Brookings Institution and Resources for the Future, 1995.

not insure older cars with low market values against collision damage, for example. Similarly, the best risks in a particular market (those with the lowest probability of making a claim) may not buy insurance when the cost of the insurance exceeds their expected loss associated with the insured-against event. Among Americans without health insurance are many healthy young people in college, graduate school, or just beginning work who choose not to purchase available health insurance because its cost exceeds the value of the benefits that they would expect to receive.

Finally, for an event to be insurable, the probability of loss cannot be too high. Imagine an individual told he has six months to live who goes out to buy a $50,000 life insurance policy. Assuming the prospective insurer can discover the potential policyholder's prognosis, the only circumstances under which such a policy would be available would be if the insurer could collect premiums approximately equal to $50,000, plus administrative costs and some profit in the next six months.[17] The consumer would be better off saving the premiums (assuming he could afford them) and self-insuring under such circumstances. When the probability of loss approaches certainty, the individual risk can no longer be placed in a risk pool where insured-against events are distributed randomly. The insurance company will attempt to extract through premiums the entire costs that it expects to incur due to the individual policyholder's future claim. By self-insuring (setting aside the money he would have paid in premiums), the individual who faces an almost certain loss can cut out the administrative and transactional costs of insurance intermediaries, and thereby save money.

For an event to be insurable, the probability of loss cannot be too high.

Industry Structure

Worldwide, insurance companies collected $1.466 trillion in premiums in 1992. Of that total, $522.5 billion, or 35.64 percent, was collected in the United States, which is the largest insurance market in the world.[18] Japan had the second largest market in 1992 ($320.1 billion in premiums, representing 21.84 percent of the world market), while Germany came in a distant third ($107.4 billion in premiums, representing 7.33 percent of the world market). Residents of Switzerland paid the most premiums per capita in 1992 ($2,923). Japan had the second highest per capita expenditures on insurance ($2,576), and the United States came in third ($2,068).[19]

The U.S. insurance industry includes three segments: life insurance, health insurance, and property/casualty insurance.[20] The basic business

[17]Given the short duration of the policy before payout, investment earnings on the premium income would be limited.

[18]*The Fact Book 1995*, p. 12.

[19]Ibid.

[20]Some students of the industry list the independent insurance agents as a fourth segment.

of life and health insurers (which are sometimes included together) is relatively self-explanatory. Property/casualty insurance covers everything else: private and commercial auto insurance, homeowners insurance, commercial property insurance, product liability insurance, medical malpractice insurance, and workers compensation insurance, to name a few.

There are some 6,000 insurance companies in the United States. Roughly two-thirds of these are property/casualty companies while the remaining 2,000 are life and/or health insurers. Insurance companies may be owned either by stockholders or by policyholders (mutual companies). At mid-year 1993, 1,777 (or 94.2 percent) of the 1,886 life insurance companies were stock companies. Although fewer in number, the 109 mutual life companies accounted for 36.8 percent of the life insurance in force and 38.9 percent of the assets of U.S. life insurance companies.[21] The picture is a bit more complex when it comes to property/casualty insurance. According to 1989 data, the private auto, homeowners, and medical malpractice insurance markets were roughly split between stock and mutual companies. Stock-owned companies, however, were more important providers of commercial auto, fire insurance, commercial multiple peril insurance, general liability insurance, and workers compensation coverage.[22]

According to the U.S. Census Bureau, more than two million individuals identified their primary employment as being in the insurance field in 1993.

According to the U.S. Census Bureau, more than two million individuals identified their primary employment as being in the insurance field in 1993. Property/casualty insurance companies directly employed 619,000 people, life insurance companies employed almost 562,000 individuals, and health insurance companies had 278,500 employees. Another 662,000 people worked as independent insurance agents, brokers, or service personnel.[23]

The property/casualty industry often is divided into the two categories of agency companies and direct underwriters. Agency companies market their products through self-employed, independent agents who sell similar types of insurance offered by several different companies. These independent agents receive commissions from the companies whose policies they sell. The insurance products of direct underwriters, by contrast, are sold by company employees. In 1993, agency companies accounted for 55 percent of all property/casualty sales, with direct writers accounting for the remaining 45 percent of the market (up from just 39.3 percent in 1984).[24]

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[21] *1994 Life Insurance Fact Book*, p. 109.

[22] J. David Cummins and Mary A. Weiss, "The Structure, Conduct, and Regulation of the Property-Liability Insurance Industry," in *The Financial Condition and Regulation of Insurance Companies*, Richard W. Kopcke and Richard E. Randall, eds. (Boston: Federal Reserve Bank of Boston, 1991), p. 127.

[23] See *1994 Life Insurance Fact Book*, p. 111; *The Fact Book 1995*, p. 10.

[24] *The Fact Book 1995.*

Direct writers have a marketing cost advantage, especially in providing personal lines of insurance. In 1989, direct writers accounted for 50 percent or more of private auto, homeowners, and medical malpractice insurance.[25]

Agency writers, on the other hand, are more competitive in providing commercial insurance, especially for smaller companies. In 1989, agency writers dominated the commercial auto, fire insurance, commercial multiple peril, and workers compensation insurance markets.[26] The higher costs associated with using an independent agent may be justified when the insurance agent puts together an insurance package tailored to the needs of an individual small business. Agents can also act as liaisons between their clients and the insurance company when claims are filed. These types of individualized services are more likely to be of value to business owners than to individuals who own autos or homes.[27]

TABLE II-1

LEADING WRITERS OF PROPERTY/CASUALTY INSURANCE 1993

Company/Group	Percent Market Share
State Farm Group	12.2
Allstate Insurance Group	6.4
Farmers Insurance Group	3.7
American International Group	3.6
Nationwide Group	3.2
Liberty Mutual Group	2.6
CNA Insurance Companies	2.3
ITT Hartford Insurance Group	2.3
Aetna Life & Casualty Group	2.2
Continental Insurance Companies	1.9
Ten firm concentration ratio	**40.4**

Source: The Fact Book 1995, *p. 8.*

The insurance market is relatively unconcentrated. Among all property/casualty insurers nationwide in 1993, the State Farm Group (the largest in the country) had a market share of just 12.2 percent. The four largest property/casualty insurance companies accounted for just 25.9 percent of the total market, and the top ten companies wrote just 40.4 percent of the property/casualty insurance in force.[28] Table II-1 identifies the ten largest property/casualty insurers as of 1993 and their market shares.

Some insurance markets are more concentrated, but not much more. In the market for homeowners insurance, State Farm policies accounted for 23.3 percent of total premiums written in 1993, while the top four companies wrote 43.8 percent of the business.[29] In the auto market, State Farm collected 18.9 percent of auto insurance premiums, and the four-

[25]Cummins and Weiss, p. 130.
[26]Ibid.
[27]Ibid., pp. 129-130.
[28]*The Fact Book 1995*, p. 8.
[29]Ibid.

TABLE II-2

LEADING WRITERS OF AUTO AND HOMEOWNERS INSURANCE
1993

Auto Company/Group	Market Share (%)	Homeowners Company/Group	Market Share (%)
State Farm Group	18.9	State Farm Group	23.3
Allstate Ins. Group	10.6	Allstate Ins. Group	11.8
Farmers Ins. Group	5.6	Farmers Ins. Group	5.6
Nationwide Group	3.5	USAA Group	3.1
USAA Group	2.8	Nationwide Group	2.8
Liberty Mutual Group	1.9	Chubb Group of Ins. Cos.	2.1
Progressive Group	1.7	Prudential of Amer. Grp.	2.1
Geico Corp. Group	1.7	Aetna Life & Cas. Group	1.9
ITT Hartford Ins. Group	1.5	Safeco Insur. Companies	1.6
Prudential of Amer. Grp.	1.4	ITT Hartford Ins. Group	1.5

Source: The Fact Book 1995, *pp. 8-9.*

firm concentration ratio was 38.7 percent.[30] Table II-2 lists the top ten insurance companies in the auto and homeowners markets.

The competitive nature of the industry is indicated further by the fact that four of the top ten companies writing auto and homeowners insurance are not among the top ten property/casualty companies overall. These four large, successful companies may represent potential entrants in markets where they do not currently operate if new profit opportunities arise there. The changing positions of industry members also signal a competitive industry. In the homeowners market, for example, Allstate lost market share between 1991 and 1993, and during the same period, Aetna fell from fifth to eighth place.

The changing positions of industry members also signal a competitive industry.

Finally, the insurance industry generally reported after-tax profits below those of many other industries. In 1993, the median after-tax return on equity for property/casualty companies was 9.8 percent. Other reported after-tax returns on equity were: commercial banks — 14.2 percent, utilities — 10.2 percent, transportation companies — 11.4 percent, and the Fortune 500 industrial companies — 10.3 percent.[31]

[30]Ibid., p. 9.
[31]Ibid., p. 19.

III. INDUSTRY OPERATIONS

One of the most misunderstood aspects of insurance industry operations is the basis on which premiums are set. Comparing the uses to which premiums are put in different segments of the industry provides a convenient starting point for discussing industry operations.

For every dollar earned by life insurance companies in 1993, 71.8 cents came from premium income and 28.2 cents came from investment earnings and other income. From every dollar collected, 53.8 cents was paid out in benefits, and 30.6 cents was added to reserves and surplus funds in anticipation of future benefit payments. Life insurers' operating expenses amounted to 11.2 cents of every dollar collected, with 4.6 cents going to agents' commissions and 6.6 cents devoted to general office expenses. Life insurance companies, on average, paid 2.8 cents of every dollar collected in taxes and returned 1.6 cents as dividends to owners.[32]

Expected claims costs account for both the general level of insurance premiums and the differences in insurance premiums charged to different groups of policyholders.

For every dollar of income in 1993 for property/casualty insurers, 88.1 cents was collected in premiums and 11.9 cents was earned through investments.[33] From this total income, property/casualty companies paid out 70 cents in claims and costs associated with claims adjustment. Sales and administrative expenses accounted for 20.6 cents of the total, and 5.8 cents were added to insurance company reserves. Taxes took another 2.5 percent, and finally, stockholders were paid 1.1 cents in dividends.[34]

To illustrate a more specific example within the property/casualty industry, for every dollar paid in auto insurance premiums, three cents goes to federal and state taxes, 19 cents goes to administrative expenses, 39 cents goes to paying property damage claims, 38 cents goes to paying personal injury claims, and one penny represents the profit to auto insurance company owners.[35] Commissions paid to brokers and agents represent about half of the administrative expenses of auto insurance companies, while salaries for other employees, utilities, equipment, advertising, and other business expenses account for the remainder.

An insurance company's most important expense category, and hence the primary determinant of its insurance premiums, is claims costs. Expected claims costs account for both the general level of insurance premiums and the differences in insurance premiums charged to different groups of policyholders. Total claims costs (or loss costs) are a function of both the frequency of claims and the average size of claims made.

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[32]*1994 Life Insurance Fact Book*, p. 75.

[33]Property/casualty companies collected $241.5 billion in premiums and earned $32.6 billion in investment income in 1993. See *The Fact Book 1995*, pp. 18, 21.

[34]These numbers are derived from data reported by *The Fact Book 1995*, p. 16.

[35]Marjorie M. Berte, *Hit Me — I Need the Money: The Politics of Auto Insurance Reform* (San Francisco: ICS Press, 1991), p. 22.

Ideally, insurance companies base premiums on *expected* claims costs. Although past behavior can be an important guide to expected future claims, insurance companies must also be aware of changes among their clientele as well as economic, legal, and political changes that may affect either the frequency or size of future claims.

One important change occurs through the very act of obtaining insurance. Once an individual has purchased insurance, he has less incentive to take steps to avoid the insured-against event. A driver with auto theft insurance is less likely to walk back two blocks to be sure that he locked his car than a driver without such insurance. Similarly, homeowners with insurance against earthquake or windstorm damage are less likely to spend money on home improvements that would reduce damage in the event of a natural disaster. When insurance causes individuals to take more risks or fewer precautions, insurance is said to create a "moral hazard."

When insurance causes individuals to take more risks or fewer precautions, insurance is said to create a "moral hazard."

Moral hazard can become a serious problem. Insurers use deductibles and coinsurance to address the moral hazard problem, control claims costs, and make costs more predictable. Deductibles require insured parties to pay a fixed-dollar amount of losses before insurance coverage begins. In some cases, such as automobile or homeowners insurance, the deductible may apply in every instance where a claim is filed. For health insurance, however, a single deductible generally is applied to total medical expenses incurred during a calendar year. Coinsurance requires policyholders to pay a percentage of all losses or costs arising from any and all insured-against events. For example, some health insurance policies require policyholders to pay 20 percent of medical expenses, while the insurance company pays the remaining 80 percent.[36] By imposing direct costs on policyholders, deductibles and coinsurance encourage insurance customers to take care to avoid insured-against events and control their costs.

Policyholders sometimes accuse insurers of increasing premiums to pay for larger-than-expected claims costs (sometimes from other lines of insurance) or higher-than-average administrative expenses. This is termed "retroactive loss loading." In a competitive insurance market, however, such a pricing policy would not succeed.[37] Suppose an insurer suffers losses for which it has not built sufficient reserves, and the company attempts to recoup those losses by increasing premiums charged policyholders during the next year. Other insurance companies (including potential new entrants) would then have an opportunity to gain market

[36]Traditionally, "coinsurance" also referred to a sharing of expenses when a policyholder did not purchase enough insurance to cover the full value of the property.

[37]Retroactive loss loading is more likely to occur when state regulators set premium floors. See the discussion on premium regulation in Section IV.

share by undercutting the first insurer's high prices.[38] Large commercial customers may choose to self-insure, either individually or through risk-retention groups.[39] Other insurance customers may simply exit the market.

Insurance companies should find it especially difficult to shift losses from one line of insurance (e.g., auto) to policyholders buying another type of coverage (e.g., homeowners). Because different insurance companies offer different lines of insurance, not all insurers that provide homeowners coverage in a particular market necessarily offer auto insurance there. Homeowners-only insurance companies would be able to underbid companies that attempted to shift part of their auto insurance costs to customers buying other types of coverage.

Unexpectedly large losses suffered by a number of insurance companies may cause all insurers to reconsider their likely future losses when setting new premiums.

It may be difficult to distinguish between what appears to be retroactive loss loading and a reevaluation of future risks. Unexpectedly large losses suffered by a number of insurance companies may cause all insurers to reconsider their likely future losses when setting new premiums. For example, homeowners insurers suffered substantial losses when Hurricane Andrew hit South Florida in August 1992. Eleven companies failed, and one of the largest insurers in the state (Allstate) paid out more in Andrew-related claims by homeowners than its total profits from the Florida homeowners' market in more than 50 years of doing business there.[40] As a result of Hurricane Andrew, insurers obtained significant new information about the inadequacy of existing building codes and inspection efforts when it came to protecting against windstorm damage. Thus, higher (post-Andrew) premiums for property insurance in Florida and similar areas may well be the result of new information about likely claims in the event of other storms.[41] The issue of whether retroactive

[38]The more competitive that insurance markets are, the more insurance consumers are protected from an insurer's opportunistic behavior. Competitive insurance markets are generally marked by relatively easy entry and exit and relative freedom in setting premiums.

[39]The efforts of insurance companies to recoup guaranty fund assessments through higher premiums have led commercial customers to institute self-insurance schemes. See John M. Covaleski, "Filling the Holes among Guaranty Funds," *Best's Review*, Property/Casualty Edition, April 1994, p. 26.

[40]Martin Giles, "Insurance," *Economist* Survey, December 3, 1994, p. Survey 5.

[41]A similar reevaluation of expected future claims takes place when a driver, especially a younger driver, files an auto insurance claim. Personal auto insurance claims are often followed by increased premiums, and insured drivers may wonder what happened to the premiums that they paid in the past. The common perception is that insurance companies raise personal auto insurance premiums to pay claims costs. Insurers view the matter differently. Accidents do not occur randomly across the population. Drivers who are involved in accidents identify themselves as more likely to be involved in future accidents. To the insurer, the additional information that an individual has been involved in an automobile accident causes the policyholder to be shifted to a higher-risk pool. Further evidence that greater risk causes higher premiums comes from the fact that a driver involved in an accident cannot avoid higher premiums by changing insurers. The new company will also place the driver with

loss loading is taking place might be determined in part by asking what premiums an insurer just entering the market would charge.

The Life Insurance Industry

Life insurance companies provide life insurance and annuity or pension products. Some life insurers also offer health insurance. Life insurance products are sold as individual policies and as group or industrial policies. Life insurance policies provide either term insurance or permanent insurance. Term insurance provides protection only for a specified period of time, and it offers only death benefits. Term insurance may be repriced at the beginning of each new contract period, and term policies offer a variety of contract periods. Some term policies are sold (and repriced) on an annual basis. Other term insurance policies are multi-year contracts. Premiums generally rise as a policyholder ages or if his health deteriorates, because term insurance premiums are based on the probability that a particular individual will die during the next contract period.

The cash value associated with permanent life insurance policies provides policyholders with options that they do not have with term life insurance.

Permanent life insurance offers both a death benefit and a savings component, usually referred to as the policy's "cash value" or "surrender value." Policyholders are expected to retain permanent life insurance contracts for decades. With a few exceptions, permanent life insurance premiums remain constant as long as the policyholder retains the contract.[42]

The cash value associated with permanent life insurance policies provides policyholders with options that they do not have with term life insurance.[43] When policyholders cancel (or surrender) a permanent life insurance policy, they can receive the cash value as a lump sum payment.[44] Some permanent insurance policies allow policyholders who temporarily

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accidents on his record in a higher-risk pool and charge him higher premiums than it would charge a driver with no accidents. The new insurer is obviously not attempting to recoup past losses.

[42]Permanent life insurance premiums are held constant over the life of the contract by charging the policyholder the average cost of insurance over the entire period of the contract. In the early years of the contract, the owner of a permanent life policy generally pays higher premiums than he would pay for a term policy with similar death benefits. The higher premiums paid during the early years of the permanent policy are invested (after covering administrative expenses) and used to cover the rising cost of providing insurance as the policyholder ages.

[43]Note that the cash value associated with a permanent life insurance policy is different from the face value (or promised death benefit). Cash value is the amount due the policyholder if the insurance contract is terminated while the policyholder is alive. Cash values, which generally grow as long as the policy is in force, are available due to the savings component associated with permanent life insurance policies. The face value (or death benefit) is the amount that is due the policyholder's beneficiary if the policyholder dies while the contract is in force. Beneficiaries have no claim on the policy's cash value after the policyholder dies.

[44]Policies canceled during the contract's early years may not have built any cash value. Initial premiums go to covering administrative expenses, including sales commissions.

cannot pay their premiums to use the cash value in their policies to cover these charges and retain their insurance coverage. In such cases, the cash value of the policy and/or the death benefits decline (depending on the terms of the insurance contract) until premium payments are resumed. Policyholders can also borrow from the insurance company against all or part of the cash value of their policies. If these loans are not repaid with interest, death benefits are usually reduced by the amount due the insurance company.

There are three general types of permanent life insurance policies. "Whole life" policies establish premiums that are paid periodically and remain constant over the life of the policy.[45] "Universal life" policies give policyholders more flexibility regarding the timing and amount of premium payments (subject to certain minimums and maximums). A policyholder's decisions about premium payments determine, in turn, the cash value of universal policies. Finally, the cash values and death benefits associated with "variable life" policies depend on the performance of an underlying portfolio of investments chosen by the policyholder.

The mix between permanent life products and term life insurance has changed significantly over the past three decades.

The mix between permanent life products and term life insurance has changed significantly over the past three decades. In 1960, 91 percent of the life insurance policies sold to individuals were some form of permanent life policies, while only 9 percent of individual life policies were term policies. By 1993, permanent life policies had fallen to 75 percent of the total, and 25 percent of policies sold to individuals were term policies.[46]

This picture for life insurance is a bit more stable if we consider the face value of policies sold. In 1960, permanent life policies accounted for 59 percent of individual life insurance in force, while term life policies represented 41 percent of the face value of individual life insurance sales. The face value of permanent life insurance did fall to a low of 40 percent of total insurance in force in 1981 and 1982. By 1993, however, the shares of permanent and term life insurance in force had returned to 56 percent and 44 percent, respectively.[47]

Consumers' demand for traditional, permanent life insurance products declined because returns offered through the cash values associated with older whole life policies lagged returns available on other

[45]Insurance companies often offer policyholders a choice of paying premiums monthly, semiannually, or annually.

[46]*1994 Life Insurance Fact Book*, p. 13.

[47]Ibid.

investments, especially in the 1970s and early 1980s.[48] In response, life insurers not only introduced new life insurance products (such as variable life policies), they also became increasingly active in the annuities and pension fund management markets.

Table III-1 shows how the mix of business for life insurers has changed. Life insurance premiums as a share of total premium income fell steadily in importance between 1950 and 1993 — from 76.3 percent of total premium income to just under 30 percent. Meanwhile, annuities payments increased from 11.5 percent of premium income in 1950 to 49 percent of life insurers' premium income in 1993. Looked at another way, life insurance premiums were seven times as large as annuity receipts in 1955. By 1980, life premiums were only 1.8 times as large as annuity receipts, and by 1990, annuity receipts were 1.6 times life insurance premiums.[49]

TABLE III-1

PREMIUM MIX FOR LIFE INSURANCE COMPANIES

(Income from Products as a Percentage of Total Premium Income)

Year	Life Insurance	Annuity Payments	Health Insurance
1950	76.3	11.5	12.2
1960	69.1	7.7	23.2
1970	59.0	10.0	31.0
1975	50.1	17.3	32.6
1980	44.1	24.2	31.7
1985	38.6	34.6	26.8
1990	29.0	48.9	22.1
1991	30.1	46.8	23.1
1992	29.7	47.0	23.3
1993	29.5	49.0	21.5

Source: Compiled from data included in the 1994 Life Insurance Fact Book, *p. 68.*

Annuities are natural extensions of traditional life insurance business. Annuities are a series of payments, often made monthly, over either a specified period or for the remaining life of the annuity owner. Annuities may be purchased with lump sums of cash (e.g., money obtained from pension fund payments or the surrender of life insurance policies), or they may be purchased by making a series of regular payments to the annuity provider in the years leading up to the time when annuity payments will begin. Life insurance companies have also begun to offer their services to manage pension funds for other companies. Establishing annuities and managing

[48]This was less true for "participating" whole life policies offered by mutual companies than for whole life policies offered by stock companies. As "owners" of the mutual insurance company, policyholders with participating life insurance policies received a portion of the higher returns available in the early 1980s. See Robert E. Schneider, "Discussion," in *The Financial Condition and Regulation of Insurance Companies*, Richard W. Kopcke and Richard E. Randall, eds. (Boston: Federal Reserve Bank of Boston, 1991), p. 127.

[49]Kenneth M. Wright, "The Structure, Conduct, and Regulation of the Life Insurance Industry," in *The Financial Condition and Regulation of Insurance Companies*, Richard Kopcke and Richard Randall, eds. (Boston: Federal Reserve Bank of Boston, 1991), p. 80. Deferment of federal taxes on gains accruing to variable annuities also probably has aided insurance companies in their efforts to expand their annuities business.

pension funds require knowledge of average life expectancies and expected rates of return on long-term investments. The same knowledge is required to be successful in the life insurance business.

Sources of Risk

The expected liabilities of life insurers, in terms of death benefits and annuity payments, are very predictable during a given period of time, especially when compared to claims against other types of insurers. Although life insurance companies do not know which individuals in a given age group will die in a particular year, actuarial science and the law of large numbers allow the insurance industry to be fairly certain how many individuals of a certain age will die in any given period.[50]

The long-term, predictable nature of traditional life insurance policies allows life insurance companies to invest in long-term, relatively illiquid assets. These companies are important commercial real estate investors. They also supply funds to the mortgage markets and lend to industrial companies.

The long-term, predictable nature of traditional life insurance policies allows life insurance companies to invest in long-term, relatively illiquid assets.

Table III-2 provides information about the mix of assets held by life insurers and how that mix has changed over the years. In 1993, life insurance companies held $1.84 trillion in total assets. Life insurers had $384.1 billion in government securities, $729.7 billion in corporate bonds, $251.9 billion in corporate stocks, $229.1 billion in mortgages, $54.2 billion in real estate investments, $77.7 billion in policy loans outstanding, and another $112.4 billion in miscellaneous assets.

Their long-term, relatively illiquid investments allow life insurance companies to earn a higher rate of return on their portfolios than they would earn if they were forced to invest entirely in shorter-term, more liquid assets. Life insurance premiums are thus lower, and annuity payments are higher, than they would be if life insurers pursued more conservative investment strategies.

The longer-term, relatively illiquid nature of life insurers' investments also entails certain risks, such as interest rate risk and asset value risk.

Interest rate risk.

All long-term lenders, whether they buy mortgages, government bonds, or corporate bonds, face the risk that interest rates will rise or fall. When interest rates rise, newly received premiums can be invested in interest-bearing depository accounts and debt obligations at higher rates

[50]The law of large numbers says that the larger the sample size the more it will reflect the statistical characteristics of the population as a whole.

TABLE III-2

ASSETS OF LIFE INSURANCE COMPANIES

(Assets as a Percent of Total Assets)

Year	Government Securities	Corporate Bonds	Corporate Stocks	Mortgages	Real Estate	Policy Loans	Misc.
1950	25.2	36.3	3.3	25.1	2.2	3.8	4.1
1960	9.9	39.1	4.2	34.9	3.1	4.4	4.4
1970	5.3	35.3	7.4	35.9	3.0	7.8	5.3
1975	5.2	36.6	9.7	30.8	3.3	8.5	5.9
1980	6.9	37.5	9.9	27.4	3.1	8.6	6.6
1985	15.0	36.0	9.4	20.8	3.5	6.6	8.7
1990	15.0	41.4	9.1	19.2	3.1	4.4	7.8
1991	17.4	40.2	10.6	17.1	3.0	4.3	7.4
1992	19.2	40.3	11.5	14.8	3.1	4.3	6.8
1993	20.9	39.7	13.7	12.5	2.9	4.2	6.1

Source: 1994 Life Insurance Fact Book, *p. 84.*

of return. At the same time, however, the market values of bonds and mortgage securities already in a company's portfolio will fall.[51] The more distant the maturity date of the bond or mortgage (in other words, the more long-term the investment), the more the market price will fluctuate. The expected return on investments held to maturity does not change, but if the investor (in this case, the insurance company) needs to sell these securities, the return on its investment will be lower than expected.[52]

Under the terms of permanent life insurance policies, policyholders can borrow from the insurer against the cash value of their policies. Before the 1980s, it was common for the interest rates applied to policy loans to be set for the life of the contract when the life insurance policy was initially written. During periods of rising interest rates, interest charged by banks and other lenders sometimes rose above interest charged on life insurance loans. In the early 1980s, for example, some policyholders borrowed from their insurance companies and invested the proceeds in money market mutual funds, which were earning returns substantially above rates charged on many insurance policy loans.

Moreover, loans against the cash value of a life insurance policy are not subject to the credit checks of more traditional loans. Tight credit

[51]Similarly, when interest rates fall, market prices of bonds and mortgages rise.

[52]Nor should companies overlook the "opportunity cost" associated with rising interest rates. When interest rates rise, the interest income expected from bonds already in a company's portfolio will not rise. Nor will overall returns on the company's existing holdings of debt securities (interest payments plus capital appreciation) rise to match returns now available in the market. Not taking advantage of higher market rates when they are available represents a cost to the long-term investor in terms of income foregone.

markets may thus lead an increasing number of policyholders to borrow against their life insurance policies. As a share of life insurance company assets, policy loans reached a post-war high of 9.3 percent ($48 billion) in 1981.[53]

Policy loans, especially those made at below-market interest rates, can cause financial problems for insurance companies. Increased borrowing by policyholders from their insurance companies, during periods of rising interest rates, can force insurers to liquidate assets (bonds or mortgage securities) when their market value is depressed. When such policy loans earn below-market interest rates, the losses of insurance companies are further compounded.

The problems that life insurance companies encountered during the 1980s because of fixed-rate policy loans led regulators and legislators in all states to take steps to allow life insurance companies to write contracts under which interest rates on policy loans would be determined by an index of market rates.[54] This change has reduced the incentive for policyholders to borrow large amounts from life insurers when interest rates rise. Allowing interest rates charged on policy loans to vary has also eased the problem of insurance companies' earning substantially below-market rates of return on policy loans.

Policy loans, especially those made at below-market interest rates, can cause financial problems for insurance companies.

Similar problems arise when policyholders cash in their permanent life policies. As in the case of policy-based loans, insurance companies must liquidate assets before their maturity date to pay policyholders who want to surrender their policies. In some cases, "runs" on insurance companies are caused by fears about the insurer's financial condition. Policyholder runs helped close the Executive Life Insurance companies in California and New York in 1991. Policyholders lost confidence in members of the Executive Life group despite reassurances from regulators that the companies were financially sound.[55]

Life insurance policies may also be cashed in because of rising interest rates. Policyholders may feel that they can receive a better return on their money by investing it elsewhere, or another insurance company

[53] *1994 Life Insurance Fact Book*, p. 105. Life insurance companies had almost $78 billion in policy loans outstanding in 1993, but that represented only 4.2 percent of insurance company assets.

[54] The application of fixed rates to policy loans also may have been due to the expectations of insurance company executives that the relatively stable interest rates of the 1950s and 1960s would continue. Insurers were not alone in failing to foresee the interest rate volatility that would occur during the 1970s and early 1980s. Many states reinforced this myopia by limiting the ability of insurers to include floating interest rates on policy loans.

[55] In fact, Executive Life was not financially sound. See, for example, Alan Gart, *Regulation, Deregulation, Reregulation: The Future of the Banking, Insurance, and Securities Industries* (New York: John Wiley & Sons, Inc., 1994), p. 192.

may offer lower premiums or higher returns if policyholders move their business.[56] Again, the 1980s provide an example of this phenomenon. Voluntary termination of life insurance policies rose rapidly from 6.7 percent of all policies in force in 1975 to 12.3 percent of policies in force in 1985, before beginning to decline slowly. In 1993, 7.6 percent of life insurance policies were voluntarily terminated. Although this was the lowest percentage since 1985, it was still higher than the 5.1 to 6.5 percent of terminations that occurred throughout the 1960s and up through 1974.[57]

The annuities business of life insurers can also run into problems when interest rates change unexpectedly. In the case of annuities and pension funds, however, falling interest rates cause more problems than rising rates, because the liabilities involved often extend farther into the future than the maturity dates of even the longest-term government and private sector bonds. When interest rates fall, insurance companies may find that they are unable to reinvest funds from maturing corporate or government bonds at the returns that they had been earning. Mortgages with high rates of interest are also more likely to be repaid early (and refinanced) when interest rates are falling. Again, this leaves life insurance companies with funds that need to be reinvested during a period of low interest rates. The earnings on investments by life insurers may thus be less than expected. This can cause problems for life insurance companies in paying annuity benefits or meeting promised future pension payments.

During the 1970s and 1980s, consumers became more sophisticated when it came to purchasing financial services of all kinds.

Asset value risk.

Failures among insurance companies caused considerable concern during the late 1980s and early 1990s. The total of 65 life insurance company failures in 1991 was more than in any year since the Depression.[58] These life insurance failures were caused by falling asset values, and they can be explained in large part by the pursuit of higher returns through increased portfolio risk.

During the 1970s and 1980s, consumers became more sophisticated when it came to purchasing financial services of all kinds. Individuals began to do more comparison shopping with regard to both fees paid and returns promised on savings and investments. The result was both more competition within the insurance industry and more competition between

[56]Sales practices of insurance companies that encourage individuals to surrender older policies and use the cash value to buy new policies are currently under investigation in New Jersey, New York, Texas, California, Arizona, and Maine. (See Michael Quint, "6-State Force to Open Inquiry into Insurance Sales Practices, *New York Times*, April 26, 1995, p. D6.) Because initial premiums go to cover administrative expenses, including sales commissions, permanent life insurance contracts generally have low cash values in their early years. Some consumers, especially older individuals who do not have decades to allow the cash value of their new policies to build, have lost substantial amounts of money when they surrender older policies to buy new insurance products.

[57]*1994 Life Insurance Fact Book*, p. 67.

[58]Covaleski, p. 86.

insurers and other financial institutions. Life insurance policies, as investments, now compete with bank certificates of deposit and mutual funds. This increased competition has lowered profit margins and generated pressure to increase returns on investment portfolios.[59]

As a rule, increasing expected returns requires an increase in the risk associated with investments. Some insurance companies clearly did increase the riskiness of their asset portfolios during the late 1970s and 1980s. As the market in high-yield bonds grew in the 1980s, for example, life insurance companies expanded their holdings of these below-investment-grade securities.[60]

Securities promising higher returns almost always have more risk associated with them. Investors should expect a higher default rate on bonds carrying lower ratings and higher yields. Events beyond the control of the life insurance industry, however, also negatively affected the returns on life insurers' portfolios.

The government's solution to the S&L crisis delivered another blow to many life insurance companies.

The savings and loan fiasco provides a case in point.[61] Life insurance companies were affected by the S&L crisis in two important ways. One consequence of the savings and loan fiasco was substantial overbuilding in many commercial real estate markets.[62] As investors in commercial real estate and commercial real estate mortgages, life insurance companies found the value of their assets unexpectedly reduced. When real estate markets became overbuilt, competition for tenants increased, and cash flows from office buildings declined. Life insurance companies were adversely affected whether they owned the buildings themselves or merely held the mortgages on the office buildings.

The government's solution to the S&L crisis delivered another blow to many life insurance companies. The Financial Institutions Reform, Recovery and Enforcement Act of 1989, enacted by Congress as the solution to the S&L crisis, required that savings and loan associations divest themselves of their high-yield bonds within five years. By flooding the market with these securities, this forced divestiture substantially

[59]For further discussion of this point, see Richard W. Kopcke, "Financial Innovation and Standards for the Capital of Life Insurance Companies," *New England Economic Review*, January/ February, 1995, pp. 29-30.

[60]High-yield (or junk) bonds are bonds issued by companies that do not receive an investment-grade rating from one of the bond rating services such as Standard & Poor's or Moody's. Some high-yield bonds are issued by larger companies that have encountered financial difficulties. Others come from sound companies that are simply too small to receive investment-grade ratings.

[61]Before 1980, S&Ls were required by federal laws and regulations to fund 30-year fixed rate mortgages with passbook savings accounts, essentially payable on demand. As interest rates rose during the 1970s, S&Ls found that their cost of funds exceeded the rates of return on their loan portfolios, and hundreds of institutions became insolvent. Because so much of the industry was affected, policymakers decided in the early 1980s to allow insolvent institutions to remain open without being recapitalized. Some of these S&Ls continued operating for years with none of their owners' money at risk.

[62]In efforts to recoup past losses, insolvent S&Ls tended to seek out projects promising high rates of return (and incorporating high degrees of risk).

lowered the price of all high-yield bonds, even those issued by successful companies. Life insurers that held high-yield bonds saw the value of their portfolios decrease as well. Indeed, four of the largest life and health insurance companies that failed in 1991 had 40 percent or more of their assets in high-yield bonds.[63]

In summary, when life insurance companies fail, it is usually because of unexpected changes in the market value of their assets — primarily caused by changes in interest rates or default rates — rather than because of changes in life insurers' liabilities. This is very different from the situation facing property/casualty insurers.

TABLE III-3

PROPERTY/CASUALTY PREMIUMS COLLECTED BY TYPE OF INSURANCE

Type of Insurance premiums	Premiums Collected (000,000)	Percent of total
Private passenger auto	$ 93,376	38.6
Commercial auto	16,336	6.8
Medical malpractice	4,371	1.8
General liability	15,893	6.6
Product liability	1,859	0.8
Fire, earthquake, and allied lines	7,865	3.3
Homeowners multiple peril	21,546	8.9
Farmowners multiple peril	1,090	0.4
Commercial multiple peril	17,308	7.2
Workers compensation	30,321	12.5
Accident and health	6,796	2.8
Surety and fidelity	3,051	1.3
Other lines	21,751	9.0
TOTAL, ALL LINES	**$241,563**	**100.0**

Source: The Fact Book 1995, *pp. 13-14.*

The Property/ Casualty Insurance Industry

The property/ casualty insurance industry provides all types of coverage except life insurance. The primary sources of the $241.6 billion in premiums collected by property/casualty insurers in 1993 are shown in Table III-3.

Just as life insurance companies do, property/casualty companies invest the premiums they receive in anticipation of claims. Neither the timing nor the amounts of claims paid by property/casualty companies are as predictable as claims paid by life insurers. As a result, property/casualty insurers are more conservative investors than life insurers. Property/casualty companies tend to keep their assets invested in more liquid financial instruments.[64] Table III-4 shows that government

[63]These four companies were Executive Life and Executive Life of New York, both owned by First Executive Corporation, and First Capital Life and Fidelity Bankers Life, both subsidiaries of First Capital Holdings Corporation. See Harrington (1992), pp. 28-29.

[64]Regulations applied to property/casualty insurers also limit their investment choices.

securities represented almost 61 percent of property/casualty insurers' portfolios in 1993, compared to just 21 percent of life insurers' assets.

Investment income remains extremely important to property/ casualty companies, however. In fact, premiums collected by property/casualty insurers failed to cover claims costs in 18 of the 25 years between 1969 and 1993. Investment income, however, covered those underwriting losses and allowed insurers to realize an overall profit in all but four of those 25 years.[65]

TABLE III-4

PROPERTY/CASUALTY COMPANY INVESTMENTS

Percentage of Total Assets Invested In	1983	1988	1993
Government bonds	60.82	61.24	60.79
Corporate bonds	10.56	16.41	17.58
Corporate stock	26.56	19.68	19.39
Mortgages	1.21	1.54	0.84
Miscellaneous	0.85	1.13	1.38

Source: The Fact Book 1995, *p. 20.*

The important role played by investment income also provides insight into underwriting cycles. Reported underwriting profits, as well as prices for and availability of many lines of insurance provided by property/casualty insurers, appear to go through cycles every five or six years. During the "soft" part of the cycle, premiums for a particular line of insurance (e.g., commercial multiple peril, general business) are lowered and coverage is readily available. Insurers aggressively seek out new clients and encourage existing clients to expand their coverage. Eventually, soft markets turn into "hard" markets, marked by stricter underwriting standards, higher premiums, and reduced availability. The unpredictability of market conditions for some lines of insurance can be a source of frustration for policyholders.

There are several possible explanations for underwriting cycles.

There are several possible explanations for underwriting cycles.[66] One is that, as underwriting profits rise for a particular line of insurance, insurers functioning in a competitive market lower their premiums and underwriting standards in an attempt to attract more of the profitable business. Price competition eventually leads to reduced profitability, however, and when prices and/or insurer equity become too low, a hard market develops.[67]

The role played by investment income also helps explain changing insurance premiums. When market interest rates rise, premiums can be reduced because higher investment income will offset underwriting losses. But when interest rates fall, premiums must rise to make up for reduced investment income.

[65]*The Fact Book 1995*, pp. 17-18.

[66]Some industry observers believe underwriting cycles are a thing of the past. Certainly the five- or six-year cycle appears to have disappeared as a feature of most insurance markets.

[67]Cummins and Weiss, p. 120.

In fact, it is a mark of a competitive insurance market that premiums rise and fall with interest rate changes. Suppose interest rates begin to rise. Individual insurers would certainly prefer to keep premiums constant and add the increased investment income to profits. In a competitive market, however, some insurance company will pass along part of the benefit of higher interest rates to customers through reduced premiums. If other insurers keep premiums constant, the insurance company charging lower premiums will gain market share and increase its profits. When one, or a few, insurers reduce premiums, others soon follow. Insurance customers never object to premiums falling during periods of higher interest rates, of course. Unfortunately, if premiums are going to fall when interest rates rise, they must also rise when interest rates fall.

It is a mark of a competitive insurance market that premiums rise and fall with interest rate changes.

Not all types of policies are affected to the same extent by changes in interest rates. Premiums charged for so-called "long-tailed" policies[68] are influenced more by interest rate changes than are other types of policies.

Consider auto insurance first. At the end of each year, the auto insurer knows whether the policyholder has been involved in any accidents and whether there are any outstanding claims. Some claims may not be settled immediately, but the insurer is reasonably certain of its liabilities from the past year when the contract comes up for renewal. Auto insurance premiums are thus based on claims expected to arise during the next contract period.

Medical malpractice, a type of "long-tailed" policy, is different. The consequences of a medical malpractice event that occurs this year may not appear until several years later. At the end of the contract year, the insurance company may not yet be aware of all the claims that will be made against the policyholder for actions taken in that year. Medical malpractice contracts thus have a longer effective life than auto insurance contracts.[69] Premiums for medical malpractice insurance are based not just on claims made in a single year, but also on the possibility that other claims will arise in the future. Reserves against possible medical malpractice claims (or against any longer-term risk) are also, of necessity, longer-term investments.

The level of interest rates matters more for long-term investments because the interest payments on longer-term investments have longer to accumulate and compound. Consequently, higher interest rates mean that less money needs to be set aside initially to end up with a given sum at the end of the investment period. The longer the period over which interest

[68]These policies cover risks for which claims payments may not be made for years, or even decades, after the policy is written and premiums collected.

[69]A more technical measure of the effective life of insurance contracts is their "duration," or the weighted average period over which payments are made. In 1989, the duration of private auto insurance policies was 1.7 years, while the duration of medical malpractice insurance policies was 4.8 years. Cummins and Weiss, p. 142.

will be allowed to accumulate, the greater the impact that a given change in interest rates will have on the size of the initial investment that is required (i.e., the premiums collected). Long-tailed insurance risks will thus be affected more by changes in interest rates than shorter-term risks.

Property/casualty insurers sometimes are forced to reevaluate the probable claims costs associated with particular insurance contracts. For instance, changes in the legal environment may lead to higher expected loss costs and, hence, higher premiums. Unexpected increases in claims represent the greatest threat to property/casualty insurers.

Sources of Risk

The payouts of property/casualty insurance companies are less predictable than those of life insurance companies. Depending on the lines of insurance that a particular property/casualty company writes, it may have difficulty predicting the size of claims, the frequency of claims, or both.

Depending on the lines of insurance that a particular property/casualty company writes, it may have difficulty predicting the size of claims, the frequency of claims, or both.

Consider a relatively simple property/casualty insurance product such as fire insurance for homeowners. Although insurance companies can predict fairly accurately how many houses in a given state are likely to suffer fire damage during a particular year, the cost of repairing or replacing the houses may be less predictable. Repair costs will depend on the general economic environment (e.g. how much other construction is underway, which affects labor costs) and the cost of building materials. On the other hand, predicting expected claims costs for auto insurance is complicated by changing medical costs and tort awards. Providing insurance against damage from natural disasters is made difficult by the challenge of predicting where the next hurricane will strike, when the next earthquake will occur, or how many natural disasters will occur in any given year.

Other types of property/casualty insurance involve even more challenges. Consider environmental insurance, where legal and political risk add to the uncertainty faced by insurers. Legislatures and courts, looking for ways to compensate victims of hazardous waste spills and other environmental damage, have sometimes reinterpreted insurance contracts in order to require payment. The release of dangerous chemicals over a period of months or even years has been deemed by some courts to meet the insurance contract criteria of a "sudden and accidental" release.

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (or CERCLA, but better known as Superfund) provides another example of uncertainty. CERCLA identifies as parties responsible for clean-up costs any firms or individuals that own or have owned a particular property and any firms or individuals that have placed

hazardous wastes on that property, including firms that transported wastes generated by other businesses. Liability accrues regardless of the care with which waste disposal was undertaken.

Property/casualty insurance companies are more likely to fail because of unexpectedly high claims rather than due to problems with the assets they hold.

Businesses that found themselves responsible for clean-up costs turned to their insurance companies, hoping to collect under environmental and general liability policies. When insurance companies interpreted policy language as excluding these claims, the insurance companies were, in many cases, sued by their clients. Although a number of legal questions remain unsettled, the courts have held many insurers liable and required them to help pay clean-up costs. Courts have also held liable insurance companies that provided coverage to former owners of the property, even when insurers no longer have a contract in force with the firms, as long as a contract was in force during at least part of the time the former policyholders owned the property.[70]

Thus, it is more difficult to predict the timing and amounts of claims against property/casualty insurers than to make such estimates for claims against life insurance companies. Because property/casualty companies are less certain about when they will need to liquidate investments to pay claims, they tend to be more conservative investors than life insurance companies. Property/casualty insurance companies are more likely to fail because of unexpectedly high claims rather than due to problems with the assets they hold.

The Health Insurance Industry

Health insurance differs from other types of insurance coverage both by the types of expenses paid and by who offers or supplies the insurance. Among the primary insurance products provided by health insurers are major medical insurance, medicare supplement insurance, disability insurance, dental insurance, and long-term care insurance.

The most important changes in the health insurance industry over the past twenty to thirty years have involved who pays for insurance coverage and who retains the underwriting risk. Since World War II, health insurance has been increasingly dominated by group insurance plans.[71] Beginning in the 1970s, a growing number of employers began to self-insure rather than to purchase group health insurance from a separate insurance company.

[70]Some life insurance companies have also found themselves paying for clean-up costs under CERCLA. A life insurer is likely to be held liable for clean-up costs because the insurance company owned at some time the property designated as a hazardous waste site.

[71]During World War II, wage and price controls often prevented employers from raising the salaries and wages of valued employees in order to retain their services. Employers thus began to supplement wages and salaries with benefits as a way of increasing their employees' total compensation. Favorable tax treatment of employer-paid health insurance soon augmented this trend, even after the end of wartime wage

Table III-5 shows how the number of individuals covered by employer-sponsored, self-insured plans and by health maintenance organizations (as opposed to those covered by traditional, indemnity-based, third-party insurance plans) grew between 1950 and 1990 as a percentage of the total number of individuals insured. The share of total health insurance premiums paid into self-insurance plans also increased from 20.4 percent in 1980 to 44.1 percent in 1990.[72] The move toward self-insurance began among large employers (those with 500 or more employees). As recently as 1988, only nine percent of companies with fewer than 100 workers were self-insured. By 1994, 23 percent of these smaller companies provided health insurance benefits to their employees through self-insurance plans.[73]

TABLE III-5

NUMBER OF PERSONS WITH PRIVATE HEALTH INSURANCE
(millions)

Year	All Insured	Self-insured and HMOs	Percentage
1950	76.6	4.4	5.7
1955	101.4	6.5	6.4
1960	122.5	6.0	4.9
1965	138.7	7.0	5.0
1970	158.8	8.1	5.1
1975	178.2	13.1	7.4
1980	187.4	33.2	17.7
1985	181.3	55.1	30.4
1990	181.7	86.2	47.4

Source: Source Book of Health Insurance Data, 1993, *Table 2.5, p. 34.*

The Employee Retirement Income Security Act (ERISA), passed in 1974, contributed significantly to the growth of self-insurance plans. In the 1970s, states increasingly began to mandate expanded versions of minimum health insurance coverage. All health insurance contracts in a given state might be required to cover expenses associated with particular medical conditions or the services of particular health care providers.[74] But ERISA prohibited states from applying these mandates (or indeed any state regulatory requirements) to companies that provided coverage through self-insured "employee health benefits" plans. Many employers found that, when they self-insured rather than purchased coverage from an insurance company, they could tailor better their health insurance programs to the needs of their employees, operate them with greater flexibility, and avoid the added costs of state government regulations.

Many employers found that when they self-insured, they could tailor their health insurance programs to the needs of their employees, operate them with greater flexibility, and avoid added costs.

Large employers also saved money in other ways by moving to self-insured plans. They reduced administrative costs associated with their health insurance programs. On average, only six percent of the cost of operating an in-house insurance program goes to covering administrative

and price controls. Today, employers continue to provide health insurance benefits in many cases because employees reduce their tax liabilities when employers purchase health insurance for them. Employment-based group health insurance also generally provides administrative efficiencies and risk pooling advantages.

[72]*Source Book of Health Insurance Data 1993* (Washington, D.C.: Health Insurance Association of America, 1994), Table 2.10, p. 38.

[73]John Merline, "The Demise of Self-Insurance?" *Investor's Business Daily*, June 9, 1994, p. A1.

[74]Ibid., p. A2.

TABLE III-6

HEALTH INSURANCE PREMIUMS AND CLAIMS BY TYPE 1991
(in billions)

Type of Insurer	Premiums*	Claims**
Insurance companies (total)	**$116.4**	**$ 97.6**
Group	**103.0**	**88.8**
Fully insured	44.0	34.7
ASO	44.1	40.9
MPP	15.0	13.2
Individual	**13.3**	**8.8**
Blue Cross/Blue Shield	**67.1**	**60.0**
Self-insured	**69.2**	**64.9**
HMOs	**54.2**	**47.0**
Blue Cross/Blue Shield	7.3	6.3
Insurance companies	15.7	13.6
Other	31.2	27.1
All insurers	**$255.5**	**$222.4**

*_Source Book of Health Insurance Data 1993_ (Washington, D.C.: Health Insurance Association of America, 1994), Table 2.10a, p. 39.

**_Source Book of Health Insurance Data 1993_, Table 2.6a, p. 36.

expenses. For more traditional health insurance plans, administrative expenses range from 16 percent for companies with more than 500 employees to 40 percent of total premium costs for companies with fewer than five employees.[75] Part of the employer savings from self-insured health plans reflects the fact that the latter eliminate the need to provide a profit to the stockholders of companies that underwrite health risk through third-party insurance. Employers who self insure also avoid premium taxes that insurance companies must pay to the states in which they write business. Finally, companies that self-insure can develop incentive programs that encourage their employees to help save on total health costs. Many firms offer to share savings when employees discover billing errors or when employees keep their annual health costs below some specified total.

Despite the growth of self-insurance, many employers still turn to insurance companies to administer their health insurance plans. Health insurance companies thus earn fee income by providing "administrative services only" (ASO) contracts to large, self-insured employers. These contracts typically include claims processing as well as data collection and analysis, but some insurance companies also provide additional services such as benefit plan design services and financial advice.[76]

Self-insured employers may also take out a form of reinsurance through "minimum premium plans" (MPPs). Under such plans, the employer self-funds a portion of monthly claims, and the insurance company provides additional coverage if needed. MPPs are a form of stop-loss protection against very large claims.

[75]Ibid. See also Table III-6.

[76]_Source Book of Health Insurance Data, 1993_, p. 5.

Table III-6 provides information about the premiums collected and claims paid in 1991 by different types of health insurance providers. For fully insured group policies in 1991, 78.9 percent of premiums were paid in claims. This figure is not out of line with the share of income paid in claims by other types of insurance providers. Claims paid by self-insurance plans represented 93.8 percent of "premiums" collected for self-insurance plans, however. Administrative expenses were thus reduced from 21.1 percent[77] of premiums collected to 6.2 percent.[78]

Providing health insurance means managing cash flows.

In some respects, the business of providing health insurance differs significantly from both the life insurance and property/casualty insurance businesses. Providing health insurance means managing cash flows. Health insurers receive premiums and make claims payments on a more frequent basis than do life insurers or property/casualty insurers. Because health insurers hold premiums for relatively short periods of time before paying claims, investment income is less important to health insurers as a rule than it is to other types of insurance companies. The most important source of risk for health insurance companies involves underestimating future claims, which is similar to the risk faced by property/casualty insurers.

[77]The "administrative expenses" figure for third-party health insurance also includes a portion for profits and state premium taxes, in addition to rest of the insurers' operational overhead.

[78]If self-insured employers had to pay premiums in proportion to those paid by fully insured group contracts, their premiums would have risen to $82.3 billion from $69.2 billion.

IV. THE REGULATION OF INSURANCE COMPANIES

The states have always played a role in the regulation of financial institutions in the United States. Our "dual" regulatory system allows banks, savings and loan associations, and credit unions to choose whether they will obtain their charters from the federal government or from one of the states. States also play a role in securities regulation, although the federal government has become the dominant securities regulator since 1933. The insurance industry is unique, however, in being regulated solely by the states. There is no direct federal regulation of insurance companies.

In the beginning, states regulated insurance because the courts held that insurance was not "interstate commerce" and was therefore outside the purview of the federal government.[79] In 1945, the U.S. Supreme Court reversed earlier legal opinions and ruled that insurance was interstate commerce and, hence, subject to federal antitrust regulation. Congress responded in the same year with the McCarran-Ferguson Act. The act exempts insurance companies from federal antitrust laws to the extent that such insurance business is regulated by state law. The act goes further and expressly assigns to states responsibility for regulating the insurance industry.[80] Although specific rules vary, state insurance regulation generally addresses insurance company licensing, examination and solvency requirements, investment policies, premium rates, reserves, competency of agents, and contract provisions.

A mainstay of NAIC activity has been the development of "model laws," which are sent back to the states to be enacted, modified, or rejected as state legislators and individual insurance commissioners see fit.

The business of insurance often does not stop at state borders, however. Many insurance companies operate in several states. Furthermore, commercial insurance policies may involve a company headquartered in one state, an insurance company domiciled in another state, and insured activities that occur in a third state. To better coordinate state-based regulatory activities, the state insurance commissioners formed the National Association of Insurance Commissioners (NAIC) in 1871.[81] The NAIC provides a forum through which insurance commissioners and commission staff members from the various states can meet, discuss, and attempt to develop solutions to problems that cut across state lines or affect a number of states at the same time. A mainstay of NAIC activity has been the development of "model laws," which are sent back to the states to be enacted, modified, or rejected as state legislators and individual insurance commissioners see fit.

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[79]The U.S. Constitution lists the powers of the Congress. They include the power to "regulate Commerce . . . among the several States" (Article I, Section 8). The fact that Congress was specifically granted the power to regulate commerce among the states (i.e., interstate commerce) was, for many years, interpreted to deny Congress the power to regulate commerce occurring within a state.

[80]Jonathan R. Macey and Geoffrey P. Miller, *Costly Policies: State Regulation and Antitrust Exemption in Insurance Markets* (Washington: The AEI Press, 1993), pp. 1-2.

[81]Gart, p. 106.

Through the years, and especially over the past decade, the NAIC has seen its staff and budget increase dramatically.[82] The NAIC professional staff provides services to the state insurance commissioners. One such service is the maintenance of a New York office that specializes in security valuation. Insurance companies and their regulators can obtain information about security values for risk-based capital purposes (as part of the regulatory evaluation of the capital adequacy of insurance companies). Another service is the NAIC's International Insurers Department, which publishes a "Quarterly Listing" of alien (non-U.S.) insurers that meet specified NAIC criteria. Several state regulators use this information to determine which alien insurers will be allowed to operate within their borders.

The NAIC remains, however, a voluntary organization with no legal authority. It cannot compel state insurance commissioners or state legislators to adopt its model laws or suggested regulations. Although state insurance regulation is more standardized with the NAIC than it would be otherwise, states still differ with respect to both the insurance laws that are on the books and the enforcement and interpretation of those laws. These differences among states are viewed as a weakness by critics of state-based insurance regulation. In a report issued in October 1994, the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce, chaired at the time by Rep. John Dingell (D-MI), criticized state-based regulation for its lack of uniformity:

"What is remarkable is not that insurance companies are failing but that so few have failed in the volatile markets of the 1980s and 1990s."

> There are significant variations in the way [the NAIC's] commonly-accepted standards are actually implemented, based on the resources and methods employed by each regulatory agency. These differences among insurance supervisors are important because the United States...depend[s] on coordinated multistate regulation to control problem companies.[83]

The report continues:

> Experience shows that weak insurance companies find the weakest regulators, and competition to attract business development and jobs has worked against uniformly sound enforcement of common standards.[84]

The subcommittee's criticism of the states' regulatory efforts does not square with the facts, however. As Jonathan Macey and Geoffrey Miller observed in their overview of insurance regulation, "What is remarkable is not that insurance companies are failing but that so few have

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[82]Robert H. Myers, Jr., "An Evolutionary View of Insurance Regulation," *Best's Review*, Property/Casualty Edition, December 1994, p. 52.

[83]Report of the House Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, "Wishful Thinking: A World View of Insurance Solvency Regulation," 103 Cong. 2 Sess. (GPO: October 1994), pp. 7-8.

[84]Ibid., p. 8.

failed in the volatile markets of the 1980s and 1990s."[85] Between 1980 and 1988, for example, 1,060 savings and loan (S&L) associations failed and an additional 798 S&Ls were merged with other institutions.[86] During the same period, 831 banks failed.[87] Meanwhile, just 107 insolvencies occurred among property/casualty companies,[88] and 120 life insurance companies were identified as being financially impaired.[89]

Capital Regulation

There are several different aspects to insurance company regulation, and, over the years, states have assumed responsibility for different types of regulation depending on their relationship with the insurance company in question. Each state is largely responsible for ensuring the solvency of insurance companies headquartered (or domiciled) there. As a rule, other states accept the solvency examinations of the state of domicile; but states can refuse to license any company viewed as representing an unacceptable risk to potential policyholders. Other states can also conduct their own solvency examinations of non-resident insurers.[90]

Consumers of insurance products are not well served by regulations that increase the cost of regulatory compliance simply for the sake of "strictly" regulating insurance companies.

As noted, critics of state-based solvency regulation expect that, in order to attract the headquarters of insurance companies to their states (and thereby increase jobs and tax revenue), insurance commissioners will regulate solvency in a way that benefits insurance companies at the expense of policyholders. But this anticipated "race to the bottom" overlooks several important considerations.

Consumers of insurance products are not well served by regulations that increase the cost of regulatory compliance simply for the sake of "strictly" regulating insurance companies. Policyholders are best served by insurance markets that exhibit both stability and competition. States that are able to minimize regulatory costs while creating an environment that encourages a stable, but competitive, insurance market will serve the interests of both insurance companies and their policyholders. Insurance companies domiciled in such states should be able to compete effectively against insurers saddled with unnecessarily costly regulation.

Nor do surviving insurance companies gain for long from ineffective state solvency regulation. When an insurance company fails, other

[85]Macey and Miller, p. 7.

[86]Anthony Saunders, *Financial Institutions Management: A Modern Perspective* (Burr Ridge, Ill.: Richard D. Irwin, Inc., 1994), p. 347. Many other insolvent S&Ls remained open during the period.

[87]Peter S. Rose and James W. Kolari, *Financial Institutions: Understanding and Managing Financial Services* (Chicago: Richard D. Irwin, Inc., 1995), p. 247, Table 8-8.

[88]Saunders, pp. 338-39, Table 14-15.

[89]Gart, p. 185.

[90]Macey and Miller, p. 36.

Rather than participating in a race to the bottom, the larger, established insurance companies actually may be tempted to support more stringent regulation.

insurers in the state(s) where it operated help to pay its outstanding obligations through guaranty fund assessments.[91] Moreover, if several insurance companies domiciled in a single state begin to fail, regulators and policyholders in other states may view with suspicion all insurance companies from the troubled state. Insurance commissioners in other states may insist on a separate solvency examination for such insurance companies, or other insurance regulators may deny such companies access to their states' markets. Finally, policyholders can always choose to take their business elsewhere.

Rather than participating in a race to the bottom, the larger, established insurance companies actually may be tempted to support more stringent regulation. Stringent solvency regulation can act as a barrier to entry and reduce the competitive threat represented by new insurance companies. Furthermore, multistate insurance companies that are regulated by several different states often find it more cost effective to meet the most stringent regulations company-wide rather than to separate operations and practices by state. Multistate companies may thus gain little from lenient solvency regulation in one state, and such companies might prefer to see competitors everywhere forced to meet tougher requirements.

State regulators have focused a good deal of attention on capital requirements for insurers over the past few years. Risk-based capital standards have recently been adopted for life insurance companies and for property/casualty companies, and similar standards are being developed for health insurers.

TABLE IV-1

RISK-BASED CAPITAL COMPONENTS: LIFE INSURERS

C1	Asset risk
C2	Insurance risk
C3	Interest rate risk
C4	Business risk

Total Risk-Based Capital = $\sqrt{(C1 + C3)^2 + C2^2} + C4$

Source: Saunders, pp. 340-341.

Risk-Based Capital Requirements: Life Insurance Companies

As noted in Section III, beginning in the late 1970s and during the 1980s, many life insurance companies were encouraged by increased competition and reduced profitability to search for higher investment returns through increasing the average risk of their portfolios. For some institutions, this strategy led to insolvency when assets and investments did not pay off as expected or when the market values of assets fell below their acquisition prices. Stung by the increased number of failures (and by criticisms from Congress), state insurance regulators began to look for ways to increase their control over the investment selections made by life insurance companies.

[91]Guaranty funds will be described in more detail below.

TABLE IV-2

RISK-BASED WEIGHTS FOR LIFE INSURER ASSETS

Category	Suggested Risk-Based Capital Factor (%)
I. Bonds	
U.S. Government	0.0
Category 1: AAA-A	0.3
Category 2: BBB	1.0
Category 3: BB	4.0
Category 4: B	9.0
Category 5: CCC	20.0
Category 6: In or near default	30.0
II. Other assets	
Residential mortgages (whole loan)	2.0
Commercial mortgages	3.0
Preferred stock*	5.0
Common stock	30.0

Note*: This is the weight based on the original exposure draft. Other suggestions would vary the risk-based capital requirement for preferred stock depending on the financial health of the company in question. Thus, the risk-based capital factor for preferred stock would be 2 percent plus the comparable bond factor.

Source: Saunders, p. 341.

The NAIC adopted a system of risk-based capital requirements for life insurers in December 1992.[92] Table IV-1 identifies the most important risks facing life insurers.

- "Asset risk" (C1) is a measure of the risk associated with fluctuations in the economic values of assets in an insurance company's portfolio.

- "Insurance" risk (C2) attempts to measure the likelihood and probable costs of adverse changes in morbidity or mortality rates.[93]

- Life insurance companies face "interest rate" risk (C3) because policyholders can surrender their policies or borrow against the cash values of their life insurance policies.[94] To measure interest rate risk, the liabilities of life insurers are divided into three groups, depending on the ability of

[92]Gart, p. 112.

[93]Payouts by life insurers are relatively predictable, but occasionally changes occur that substantially affect death or illness rates. The AIDS epidemic is one example. The annuity business of life insurers can also be adversely affected by unexpected increases in longevity.

[94]See the discussion of interest rate risk above in Section III.

policyholders to surrender or borrow against their policies. Life insurers are required to hold 0.5 percent capital against low-risk liabilities, 1 percent capital against medium-risk liabilities, and 2 percent capital against high risk liabilities.[95]

- Finally, the "business" risk (C4) facing life insurance companies refers to the chance that insurers will face unexpectedly high administrative costs, resulting from higher than expected litigation costs or guaranty fund assessments in the wake of another company's failure.

Table IV-2 identifies the amounts of capital life insurers must hold against each of several different types of assets.[96]

Regulators use the capital adequacy ratio to alert them to institutions in potential trouble.

Once the necessary capital for each type of asset or risk is determined, a life insurance company calculates its total risk-based capital requirement. The life insurance company then compares the risk-based capital required with its actual capital and surplus, yielding a capital adequacy ratio for the company:

$$\frac{\text{Total surplus and capital}}{\text{Risk-based capital}}$$

Regulators use the capital adequacy ratio to alert them to institutions in potential trouble. A life insurance company with a capital adequacy ratio below 1.25 may be asked to provide additional information to its regulator. An insurer with a capital adequacy ratio below .5 may be taken over by its regulator, and an insurer with a ratio less than .35 must be taken over.[97]

As of year-end 1993, the 20 largest U.S. life insurers had an average capital adequacy ratio of 2.335. State Farm Life had the highest capital adequacy ratio of the group with 6.217, while Equitable Life Assurance had

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[95]Saunders, p. 340.

[96]Note that "capital requirements" refers to the amount of owners' equity or net worth invested in the company. Saying there is a two percent capital requirement for residential mortgages, for example, means that the owners of the insurance company must have paid into the firm (or left in the firm through retained earnings) an amount equal to two percent of the total value of residential mortgages held by the insurer. Note further that these capital requirements are additive. Total required capital is determined by adding two percent of the total value of residential mortgages to three percent of the total value of commercial mortgages to five percent of the total value of preferred stock, and so on. The more risk associated with a particular asset (the more volatile its market value), the more owners' equity will be required to remain invested in the insurance company.

[97]Greg Steinmetz, "New Yardstick on Life Insurers Is Hard to Find, Tough to Use," *Wall Street Journal*, March 10, 1994, p. C20.

the lowest one of the group with 1.254.[98] Eleven of the 20 largest life insurers had capital adequacy ratios of more than 2 at year-end 1993.[99]

Capacity: Property/Casualty Companies

Capital standards for property/casualty companies begin with a minimum amount of paid-in capital and surplus. This minimum level of capital traditionally has been set at the same level (typically about $2 million) for all insurance companies.[100] But the amount of business (the number and size of policies) that any particular insurance company can write varies with its paid-in capital and surplus. Total capital and surplus determines the "capacity" of an insurer to write policies. To understand how these standards are developed, it is useful to first review other terminology.

TABLE IV-3

MEASURING INSURANCE COMPANY CAPACITY

$$\frac{\text{Incurred Losses}}{\text{Earned Premiums}} = \text{Loss ratio}$$

$$\frac{\text{Expenses}^*}{\text{Written Premiums}} = \text{Expense ratio}$$

Loss ratio + Expense ratio = Combined ratio

Underwriting profits** = 1 - Combined ratio

*Expenses include administrative expenses associated with marketing and selling insurance policies as well as expenses associated with processing and adjusting claims.

**Underwriting profits are thus expressed as a percentage of premiums written.

Premiums collected by property/casualty insurers are used to pay claims costs and to cover administrative expenses involved in the selling of insurance and the handling and settlement of claims. If there is anything left, the insurance company has earned an "underwriting profit."

Claims costs (or losses) expressed as a percentage of total premiums is called the "loss ratio," administrative expenses as a percentage of total premiums is the "expense ratio," and the loss ratio added to the expense ratio is known as the "combined ratio." Underwriting profits as a percentage of premiums on any particular line of insurance are thus equal to one minus the combined ratio. (Table IV-3 provides a summary of these terms.) The higher the combined ratio, the lower the underwriting profits earned on a given line of insurance. In some cases, the combined ratio is

[98]Ibid., p. C1. State Farm's capital adequacy ratio was by far the highest. Nationwide Life was next with a capital ratio of 3.45, and New York Life was third with a capital adequacy ratio of 2.697.

[99]As of April 1995, 19 states had adopted the NAIC's risk-based capital standards for life insurance companies. (Information obtained by Competitive Enterprise Institute research assistant Aaron Steelman in a telephone conversation with NAIC staff, July 27, 1995.)

[100]J. David Cummins, Scott Harrington, and Greg Niehaus, "An Economic Overview of Risk-Based Capital Requirements for the Property-Liability Insurance Industry," *Journal of Insurance Regulation* 11, Summer 1993, p. 433.

equal to or greater than 100 percent. That is, premiums do not cover losses plus administrative expenses. Of course, premium income is not the only source of insurance company revenue. Investment income is also important.[101]

State regulators setting capacity constraints for property/casualty companies ignore investment income, however. Without investment income, whenever a property/casualty company's combined ratio rises above 100 percent (its losses plus expenses exceed premiums), the insurance company must use its capital and surplus to cover underwriting losses. A property/casualty company's capital requirements are expressed, therefore, in terms of the maximum ratio of premiums (or business) that can be written relative to the insurer's capital and surplus. Regulators in most states use a three-to-one ratio. For every $3 in premiums written, an insurer must have at least $1 in capital and surplus.[102] In practice, most insurance companies hold capital and surplus reserves substantially in excess of $1 for every $3 in premiums. In 1993, the property/casualty insurance industry wrote just $1.33 in premiums for every $1 in capital and surplus.[103]

If unexpectedly high losses force an insurance company to use its capital to pay claims costs, the insurer must reduce the number and size of the policies it has in force until it can rebuild its capital reserves.

In short, the capital and surplus of a property/casualty company have a direct impact on the amount of business (the number and size of policies) that an insurer can write. If unexpectedly high losses force an insurance company to use its capital to pay claims costs, the insurer must reduce the number and size of the policies it has in force until it can rebuild its capital reserves. It is not surprising then that property/casualty insurers reduce the number of policies outstanding in the wake of major losses. Hurricane Andrew in 1992 and the Northridge earthquake in 1994 provide recent examples of such events.

This system of capital regulation has some perverse results. For example, when an insurance market moves from being relatively "soft" (lower premiums) to being "hard" (higher premiums for the same coverage), and an insurer with exactly the same exposure has increased its premiums, it is then in a stronger position than before, not a weaker ("over-leveraged") one—even though its premiums-to-surplus ratio has risen. Some insurance companies are forced, nevertheless, to stop writing policies in a hard market, or they charge less than they could or should in order to avoid an apparent capacity problem. Using this measure of insurance company capacity can also encourage weaker companies to underprice their insurance policies. Insurers in need of immediate cash flow to pay current claims and expenses may have an incentive under this system to reduce the premiums charged below the rate needed to build sufficient reserves to pay expected

[101]As noted earlier, investment income turned underwriting losses into overall profits in 14 of the 25 years between 1969 and 1993.

[102]Saunders, pp. 337-38.

[103]*The Fact Book 1995*, inside front cover. The industry's premiums-to-surplus ratio for 1993 was only slightly lower than it had been in 1991 and 1992.

future claims costs.[104] Lower premiums could allow the insurer to sell more policies as consumers seek to reduce their insurance costs.[105] Lower (even inadequate) premiums can thus disguise a capacity problem, allowing the company to avoid potential regulatory constraints on its ability to write new policies and generate cash flow.

TABLE IV-4

RISK-BASED CAPITAL COMPONENTS: PROPERTY/CASUALTY INSURERS

R0	Off balance sheet risk
R1	Fixed income investment risk
R2	Equity investment risk
R3	Credit risk
R4	Net loss reserve and loss adjustment expense risk
R5	Net written premium risk

Total Risk-Based Capital =

$$R0 + \sqrt{(R1)^2 + (R2)^2 + (0.5 \times R3)^2 + [(0.5 \times R3) + (R4)]^2 + (R5)^2}$$

Source: Eric M. Simpson and Peter B. Kellogg, "NAIC's RBC: A Virtual Reality," Best's Review, *Property/Casualty Edition, February 1994, p. 92.*

Risk-Based Capital Requirements: Property/ Casualty Companies

In an attempt to address such shortcomings, the NAIC adopted a set of risk-based capital requirements for property/casualty insurers in December 1993.[106] The NAIC identified six categories of risk against which property/casualty companies should hold capital. Table IV-4 lists these risks and their designation in the risk-based capital formula.

- "Asset risk" encompasses R0, R1, and R2. Capital held against asset risk is meant to protect against potential defaults, illiquidity, or declines in assets' market value. Within each of these asset risk categories, regulators have identified riskier classes of assets against which more

Capital held against asset risk is meant to protect against potential defaults, illiquidity, or declines in assets' market value.

[104]Cummins, Harrington, and Niehaus, p. 429.

[105]All else equal (including premiums), insurance consumers would prefer to purchase insurance from more highly capitalized rather than less-well-capitalized insurers. But if consumers assume that the guaranty fund will cover their losses in the event of a failure, they may be less concerned about a particular insurer's financial strength. If premiums charged by a less stable insurer represent enough of a savings, insurance customers may be willing to purchase such insurance even when they are fully informed about the financial fragility of the company. Consumers may hope that they will not need to make a claim during the life of the contract. An insurance consumer may also be relatively unconcerned about his insurer's financial health if the policy is compulsory (as in auto or workers compensation insurance) or if the insurance policy is designed primarily to protect third parties.

[106]Eric M. Simpson and Peter B. Kellogg, "NAIC's RBC: A Virtual Reality," *Best's Review*, Property/Casualty Edition, February 1994, p. 49. It should be noted that there are many observers in the insurance industry who do not believe that the risk-based capital formula adopted by the NAIC will be effective in identifying weaker insurance companies. Simpson and Kellogg repeatedly warn against using the NAIC's risk-based capital standards to "rank" insurance companies.

capital must be held. These "risky" assets include junk bonds, common stocks, real estate, mortgage loans, and speculative securities.[107]

- "Credit risk" (R3) addresses the need to protect against the risk of default by reinsurers or others who owe money to the property/casualty insurance company.

- "Loss reserve risk and loss adjustment expense (LAE) risk" (R4) measures the risk that total claims costs (including the expenses associated with adjusting claims) will prove to be greater than company reserves and investment income. R4 has three components. First, the capital requirement for each line of insurance written by a property/casualty company is identified. These line-specific capital requirements are based on the industry's highest level of claims over the past ten years. The second component of R4 is a reserve concentration adjustment that reduces capital requirements for multiline companies because of the diversification benefits associated with writing different lines of insurance.[108] The final component of loss reserve risk is a reserve growth adjustment that increases capital requirements when a company is experiencing "excessive" premium growth as defined by the risk-based capital standards.

- "Premium written risk" (R5) represents the risk that premiums are inadequate for the lines being written.

The most important component of the risk-based capital requirement for property/casualty companies is loss reserve risk, which represents 42 percent of total required capital.

For the average property/casualty insurer, asset risk will account for approximately 21 percent of the capital required under the new risk-based system, and credit risk will account for 10 percent of risk-based capital. The most important component of the risk-based capital requirement for property/casualty companies is loss reserve risk, which represents 42 percent of total required capital. Finally, written premium risk will represent almost 27 percent of the total risk-based capital required for the average property/casualty insurance company.

As with life insurance companies, application of the risk-based capital formula by a property/casualty insurance company yields a dollar amount of capital that the insurer should hold. The insurance company then

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[107]Eric M. Simpson and Peter B. Kellogg, "Using Capital Adequacy Models," *Best's Review*, Property/Casualty Edition, December 1994, p. 26.

[108]In other words, because the risks associated with different lines of insurance are generally independent, a multiline insurer would be unlikely to suffer extraordinarily high claims costs in all its lines of business at the same time. If claims costs are particularly high for one line of insurance, the multiline company can use surplus and capital generated by its other lines to help meet policyholders' claims.

compares its actual surplus and capital with the capital recommended by the risk-based capital formula:

$$\frac{\text{Total surplus and capital}}{\text{Risk-based capital}}$$

Designers of the risk-based capital standards for property/casualty companies have identified the following sanctions for insurers that fail to meet capital requirements:[109]

- If an insurance company's total available capital falls to 80 percent or less of required capital, the firm is at the "company action level." The insurance company must submit a plan to the regulator specifying how it expects to increase its total capital and improve its ratio.

- An insurance company with total capital and surplus equal to 60 percent or less of risk-based capital is at the "regulatory action level." In addition to requiring the insurer to submit a recapitalization plan, the regulator may issue a corrective order.

- When an insurer's capital falls to 40 percent or less of risk-based capital, the company is at the "authorized control level." The regulator may now take steps to rehabilitate or liquidate the troubled insurer.

- Finally, an insurance company is at the "mandatory control level" when its available paid-in capital and surplus falls to 28 percent or less of risk-based capital. At the mandatory control level, the regulator must take steps to rehabilitate or liquidate the insurer.

Designers of the risk-based capital standards for property/casualty companies have identified sanctions for insurers that fail to meet capital requirements.

Property/casualty insurance companies must calculate their risk-based capital requirements and report the results as part of the financial information that they provide to the NAIC beginning with their 1994 end-of-year statements.[110] But as of April 1995, these enforcement standards were simply suggestions in all but three states.[111]

[109]The following information is drawn from Simpson and Kellogg, February 1994, Exhibit 1, p. 90.

[110]Actually, some 28 percent of the total number of property/casualty insurers are not subject to risk-based capital requirements (or in many cases to NAIC reporting requirements). These include single-state insurers, liquidated or dormant insurers, certain specialized companies, and state JUAs. See Simpson and Kellogg, February 1994, p. 91.

[111]As of April 1995, only Connecticut, Nebraska, and Wyoming had adopted the property/casualty risk-based capital requirements. (Information obtained by Aaron Steelman in a telephone conversation with NAIC staff, July 27, 1995.) The enforcement standards will not become part of the minimum package of regulatory tools required for accreditation until January 1, 1997. See Simpson and Kellogg, December 1994, p. 21. The NAIC's accreditation program is more thoroughly discussed below.

Risk-Based Capital Standards: Observations

Varying capital requirements with the risk facing individual insurance companies is conceptually appealing, but it is important to understand what risk-based capital standards accomplish and what they do not do.

First, the capital standards for both life and property/casualty insurers evaluate asset risk on an asset-by-asset basis. The overall risk facing an insurance company is not dependent on the performance of a single asset, however, but on the performance of the insurer's portfolio.[112] A portfolio of individually risky assets whose returns are not perfectly correlated may be less risky (have less variable returns) than a portfolio made up entirely of a single asset that is deemed safe by regulators. The danger in establishing risk-based capital requirements through an asset-by-asset analysis is that a company with "riskier" assets that are held in a well-diversified portfolio may face unnecessarily high capital requirements. Higher than necessary capital requirements increase an insurer's costs as well as increase premiums and/or reduce returns to policyholders. By discouraging investments in certain assets (e.g., stocks), risk-based capital standards may also unnecessarily reduce returns on the assets held by life insurance companies.[113]

The overall risk facing an insurance company is not dependent on the performance of a single asset, however, but on the performance of the insurer's portfolio.

Problems may also arise because the risk-based capital requirements tend to be backward-looking rather than to identify capital needs based on expected future risks. For example, when calculating loss reserve risk (the largest component of the risk-based capital requirement for property/casualty companies), regulators focus on past industry experience rather than attempt to identify conditions that might increase or decrease an insurer's future risks.[114]

There are also other cases where the risk-based capital standards emphasize industry experience over an individual company's situation, especially for property/casualty insurers. In calculating credit quality risks, for example, current standards focus on the extent of reinsurance contracts while ignoring the quality of the arrangements made by individual insurers.[115]

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[112]The financial "risk" associated with a financial asset is determined by the variability of the returns accruing to the asset. Similarly, portfolio risk is measured by the variability of the returns earned by the portfolio.

[113]Long-term investments in diversified stock portfolios have generally earned significantly higher rates of return than long-term investments in portfolios of bonds. Many annuities and permanent life insurance products are backed by just such long-term investments.

[114]Simpson and Kellogg, February 1994, p. 100.

[115]Simpson and Kellogg, December 1994, p. 27.

The presumed goal of risk-based capital standards is to mimic the market—to set capital requirements closer to what insurance consumers would insist on if they had perfect information about an insurer's financial health. But regulators face important tradeoffs in establishing rules that will apply to a wide range of insurance companies in different situations. More complex risk-based capital formulas may better match capital levels to individual company risk, but complex formulas also raise the costs of compliance and enforcement.

For their part, insurance industry regulators continue to caution observers not to expect too much from risk-based capital standards. The new capital requirements are designed to help regulators identify weak companies by specifying the minimum level of capital that an insurance company should hold. Regulators have discouraged the use of capital adequacy ratios to attempt to distinguish between the relative financial strength of adequately capitalized companies. Regulators (and other observers) argue that there are many other factors relating to an insurance company's financial health that are not included in the risk-based capital calculations.

In promoting its Financial Regulation and Accreditation Program, the NAIC departed from its past practice of offering model laws as suggestions that state regulators and legislators could adopt or modify.

The NAIC'S Accreditation Effort

The NAIC set out in 1988 to create and promote a national solvency program. The NAIC promoted its efforts as a means of enhancing state regulation by giving insurance commissioners increased confidence in the oversight of other states. This would allow each insurance commissioner to focus more attention on companies domiciled in the commissioner's own state. The NAIC's efforts to strengthen state solvency regulation also helped it to head off insurance regulation initiatives at the federal level.

In developing a national solvency program, the NAIC first attempted to identify the minimum laws, regulations, and resources that state insurance commissioners needed to effectively regulate solvency. Then the NAIC began to identify those state insurance departments that met its minimum standards. Accreditation depended on a state's having the necessary legislative and regulatory tools for effective oversight as well as having sufficient resources (including access to accounting and actuarial expertise) to conduct meaningful examinations.

In promoting its Financial Regulation and Accreditation Program, the NAIC departed from its past practice of offering model laws as suggestions that state regulators and legislators could adopt or modify as they believed appropriate. The NAIC has long been criticized by federal lawmakers because of its lack of enforcement mechanisms. With its solvency accreditation program, the NAIC attempted to develop some regulatory teeth. The NAIC pressured accredited states to stop accepting at face value the financial supervision of insurance companies domiciled

in nonaccredited states. In keeping with the NAIC's accreditation program, after January 1, 1994, accredited states (either individually or working together) would examine insurance companies domiciled in nonaccredited states but doing business in (or seeking entry into) accredited states. The insurance companies would be charged for these additional examinations.

The NAIC had accredited 43 state insurance programs and the District of Columbia as of December 1994.[116] But its accreditation program has run into increasing resistance among insurance company representatives and state legislators.[117] Several industry representatives have criticized the haste with which the NAIC's accreditation program was developed and the speed with which changes were required to be made. Many states needed to make a substantial number of legal changes to achieve accreditation.[118] State legislators have expressed resentment at what they view as an ultimatum issued by the NAIC.[119]

In 1993, the NAIC suspended the accreditation of the New York insurance department because the New York legislature failed to enact all or part of three model laws identified by the NAIC as necessary for certification.

Indeed, the National Conference of Insurance Legislators (NCOIL) launched a study in 1994 of the NAIC and its accreditation process.[120] The NCOIL report, released in March 1995, concluded that the NAIC "may have moved beyond its role as an advisory organization . . . into an area where it is becoming, in practice, a national agency for insurance regulation without proper legal authority and with the potential effect of stifling individual state initiatives."[121] NCOIL concluded that the NAIC accreditation process began well, but the NAIC then moved its "goal posts" and started to "pile on" new model laws and amendments to older model laws. All of these changes were identified by the NAIC as "essential."[122]

Even support among NAIC members has begun to deteriorate. In 1993, the NAIC suspended the accreditation of the New York insurance department because the New York legislature failed to enact all or part of three model laws identified by the NAIC as necessary for certification. At congressional hearings in June 1993, the NAIC cited its decision to suspend New York's accreditation as evidence of its commitment to requiring states to have the "tools deemed necessary for effective solvency regulation."[123] An NAIC representative then went on to testify that, "The

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[116]Liz Shuker, "Federal Regulation Ahead, Conference Told," *Journal of Commerce*, April 7, 1995.

[117]At the same time that state legislators criticized the NAIC as too unyielding, the General Accounting Office, in a report to Congress, criticized the accreditation program as being too flexible in interpreting standards applied to states. *Wishful Thinking*, p. 94.

[118]Myers, p. 52.

[119]I had the opportunity to hear the views of several state legislators on this topic at the August 1994 meeting of the Insurance Task Force of the American Legislative Exchange Council in Tampa, Florida.

[120]Myers, p. 52.

[121]Christopher Dauer, "Critics Claim NAIC Agenda Is Usurping States Rights," *National Underwriter*, Life & Health Edition, March 13, 1995, p. 4.

[122]Ibid.

[123]*Wishful Thinking*, p. 100.

State of New York has an excellent department and does a superb job of protecting that State's insurance consumers."[124] This observation led the authors of the congressional subcommittee report to ask, "How can the New York Insurance Department be 'excellent' if it fails to satisfy NAIC standards? Conversely, what good are the standards if the New York Department is 'superb' without them?"[125]

The story does not end there. The New York legislature did produce a new law as a result of its disagreement with the NAIC. But rather than adopting the NAIC's model laws, New York lawmakers passed legislation requiring that if, because of New York's nonaccredited status, any New York domestic insurer suffered any sanction, fine, or other penalty at the hands of an NAIC-accredited insurance department, the New York Superintendent of Insurance would impose similar penalties on the domestic insurers of the offending state.[126] This hardly seems to be moving the system toward the single national solvency standard desired by federal critics and some larger insurance companies.

In the 1980s policyholders began to demand better information about the financial health of institutions with which they had decades-long contracts.

Private Rating Services

Private rating agencies represent an alternative (or supplement) to state solvency regulation. A. M. Best is the oldest of the insurance rating services. It began providing information about the financial health of insurers in the 1890s,[127] and, as recently as 1984, Best provided the only insurance company rating service.[128] Over the past decade, however, four other companies have begun to offer insurance rating services: Standard & Poor's Corporation, Moody's Investors Services, Duff & Phelps, Inc., and Weiss Research.

These firms began to rate insurance companies in the wake of reduced confidence in Best's performance. By the mid-1980s, independent insurance agents and other industry insiders were widely critical of Best's "grade inflation." Best rated the vast majority of insurance companies as "excellent," and the company was accused of being slow to write down the ratings of troubled insurers. The economic turmoil of the 1970s and increased competition in the 1980s led first to increasing financial fragility among life insurance companies and eventually to a larger number of failures. Policyholders, who had long viewed life insurance as a predictable, if not boring, business, began to demand better information about the financial health of institutions with which they had decades-long contracts. Dissatisfaction with Best's ratings created an opening that attracted newcomers to the field.

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[124]Ibid.

[125]Ibid.

[126]Texas has also enacted a similar statute. See ibid., p. 101.

[127]Eric N. Berg, "The Bad Boy of Insurance Ratings," *New York Times*, January 5, 1992, sec. 3, p. 6.

[128]Mary Rowland, "Insurance Rating's Inner Circle," *New York Times*, November 20, 1994, sec. 3, p. 17.

There are important differences among the rating services. Weiss rates almost 1,500 insurance companies, while Best rates just under 800.[129] The other three rating agencies evaluate substantially fewer companies. For example, Moody's rates only about 100 insurers.[130]

Furthermore, Weiss is the only agency that does not charge insurance companies a fee to receive a rating.[131] Weiss relies instead on selling its services to consumers and consumers groups. Perhaps it is not surprising then that Weiss also gives substantially lower grades than do any of the other rating agencies. At the request of Rep. Cardiss Collins (D-IL), the General Accounting Office (GAO) attempted to compare the various rating services. The results of the GAO study were released in September 1994.

Private and public supervisors can make two types of errors.

Private and public supervisors can make two types of errors. An unhealthy firm can be labeled as healthy (Call this Type A error). Or a healthy firm can be labeled as unhealthy (Call this Type B error). In evaluating the performance of private rating services, GAO considered the speed with which the private services identified insurance companies as "vulnerable" in cases where the companies later failed or encountered serious financial difficulty. The dates on which private rating services downgraded troubled companies were then compared with the timing of state regulatory actions against these firms. In short, GAO focused on Type A error. Based on its analysis, GAO concluded that Weiss was quickest to identify weak insurers for the period it studied.[132]

This is, at best, an incomplete test of the evaluations of private rating services, however. Being labeled financially vulnerable has real consequences for insurance companies and their customers. Insurance companies identified as being weak face additional questions from their policyholders. Policyholders are more likely to surrender their policies or take out policy loans against the cash value of their permanent life insurance policies, creating potential liquidity problems for the insurer and forcing insurance consumers to find alternative suppliers. Insurance companies identified as troubled will have more difficulty selling new insurance products. This is appropriate behavior when the insurer is in fact financially vulnerable. If the insurer is healthy, such actions impose unnecessary costs on insurance companies and their policyholders. In

[129]Mary Rowland, "A Squabble over Rating Insurers," *New York Times*, November 13, 1994, sec. 3, p. 17.

[130]Rowland (November 20, 1994).

[131]Bond rating services also charge fees to the company whose bonds are rated. Ratings provide information to investors (either investors in bonds or investors in permanent life policies or annuities offered by insurance companies). If the companies in question are silent about the reliability of their promises (by choosing not to pay for a rating), investors are likely to assume the worst. Why buy a financial product about which you have no information when there are plenty of alternatives available about which more is known? Thus, even a less-than-top-notch rating is often better than no rating at all.

[132]General Accounting Office, *Insurance Ratings: Comparison of Private Agency Ratings for Life/Health Insurers*, September 1994, pp. 1-2.

evaluating rating services, it also would be useful to know how private rating firms compared with one another and with public supervisors when it came to identifying as unhealthy insurers that were in fact healthy.

The relative value of the competing rating services is an issue currently being debated among insurance industry insiders and in the press.[133] It is not clear whether insurance company rating services will tend to become tougher or more liberal in the future. All are working to develop models that more accurately predict the future stability of individual insurance companies. The information provided by rating services will also continue to be compared to what agents, industry analysts, and investors believe about the strength and stability of competing insurers.

State Guaranty Funds

Systems designed to protect policyholders and claimants in the event of insurance company failures are also operated by the states. In general, when an insurance company fails, the state insurance commissioner determines the extent to which allowable claims by the state's residents exceed available assets.[134] The commissioner then charges or assesses the surviving insurers that write the same type of insurance the amount needed to cover the failed insurer's outstanding claims. Each insurance company's share of guaranty fund assessments is determined by its share of the state's market for that type of insurance. All 50 states have insurance guaranty systems for both property/casualty insurers and life/health insurance companies. The District of Columbia has a guaranty system for property/casualty insurers, but not for life/health companies.[135]

Each insurance company's share of guaranty fund assessments is determined by its share of the state's market for that type of insurance.

The states' insurance guaranty systems provide limited coverage. For example, most state guaranty funds cover claims against a failed property/casualty company only to $300,000 per claim.[136] Individual life and health insurance claimants are also commonly protected to $300,000 in the event of a failure, although New York and Washington provide up

[133]See Rowland (November 13, 1994); Rowland (November 20, 1994); and Berg.

[134]Financial institutions (and other businesses) become economically insolvent when the value of their liabilities (what they owe) exceeds the value of their assets (what they own). For most businesses, economic insolvency also means failure or bankruptcy, as their creditors insist on repayment and refuse to extend further credit. In some cases, regulated financial institutions are not considered to have "failed," however, until regulators declare that they have failed. Economically insolvent banks and savings and loan associations were able to stay open, in some cases for years, after they became economically insolvent because their creditors (depositors) believed the federal government would pay their claims through the deposit insurance funds. As discussed below, regulators of life insurance companies typically have had less leeway than bank regulators in delaying recognition of economic insolvencies.

[135]Harrington (1992), p. 32.

[136]The exception is workers compensation insurance claims, which are generally covered without limit. Scott E. Harrington, "Should the Feds Regulate Insurance Company Solvency?" *Regulation*, Spring 1991, p. 54.

to $500,000 to individual life and health insurance policyholders.[137] Individual claimants can expect to receive no more than $100,000 for cash values of life insurance and annuity contracts in most states, but some 20 states provide from $1 million to $5 million in protection for group guaranteed investment contracts and group annuity contracts.[138] Coverage is further complicated by the fact that some state guaranty systems protect only residents of their states, while other guaranty systems provide more extensive coverage.[139]

The fact that insurance commissioners raise funds only after an insurer's failure has been a source of concern.[140] All states place limits on the amount the state guaranty fund can collect from insurers in a single year. Most states assess insurers no more than two percent of their total in-state premiums in any given year.[141] In some cases, insurance commissioners have had to delay paying claims against failed insurers because they ran into the assessment limit.[142]

Where competition exists, attempts to pay for past assessments through future premiums only invites new entry.

Other critics of the state guaranty system point to the fact that, in some states, insurance companies' guaranty fund assessments are offset by reductions in the companies' state tax liabilities. Opponents of this tax offset argue that the state's taxpayers, not the insurance industry, pay for the insurance guaranty system in such instances.

States with extensive rate regulation sometimes allow assessments to become part of the expense base against which premiums are set. For insurance companies to pass assessments along to policyholders, one of two conditions must hold. Either the state government must set rates for all insurers (or at least establish premium floors), or the state government must limit new entry, either by new insurers or by existing companies into new lines of insurance. Where competition exists, attempts to pay for past assessments through future premiums only invites new entry.

After-the-failure guaranty fund assessments also raise concerns because the failed insurance company bears none of the additional costs imposed by its failure. At first glance, guaranty fund assessments seem to play no role in discouraging risk-taking by individual insurance companies. As noted earlier, however, the insurance industry survived the 1980s with

[137]Covaleski, p. 26.

[138]Harrington, 1992, p. 32.

[139]For life insurance, for example, a state's guaranty fund typically covers policyholders who are residents of the state and the policyholders' beneficiaries, regardless of where they live. See Robert Klein, "Insurance Guaranty Funds: Issues and Prospects," paper prepared for the Competitive Enterprise Institute's conference, Rethinking Insurance Regulation, March 8, 1996, p. 5.

[140]New York is the exception. Its insurance guaranty fund is pre-funded by premiums charged insurers on a regular basis.

[141]New Hampshire allows assessments up to four percent of in-state premiums. Covaleski, p. 25.

[142]Delays in paying claims also occur because of lengthy court procedures associated with resolving insolvencies. See ibid.

significantly fewer failures than the banking or thrift industries. The relative success of insurance industry oversight is due in part to three important differences between the state insurance guaranty systems and the federal deposit insurance systems in place for banks and S&Ls.[143]

First, insurance customers are generally less sure of receiving payment in the event of a failure than are bank and thrift customers. Insurance guaranty systems are less well known than the federal deposit insurance system. In fact, in some states insurance agents are expressly forbidden from using the existence of an insurance guaranty system as a marketing tool when selling insurance policies. Furthermore, limits on coverage for insurance guaranty systems have been more strictly enforced during the past decade than were limits on deposit insurance coverage. As a result, insurance companies faced more market discipline from their customers than did banks. Policyholders with long-term insurance contracts (for example, life and annuity contracts) have strong incentives to remain concerned about the financial stability of their insurer.

The absence of a lender of last resort for insurers reinforces the effects of market discipline. When insurance companies experience a run, there is no government agency to which they can turn for loans. Insurance companies must liquidate assets, sometimes at a loss, to meet the demands of policyholders. Because these companies want to avoid runs and the ensuing asset liquidations, they have a strong incentive to avoid even the appearance of financial instability and to take corrective actions if their financial condition takes a turn for the worse. Faced with a troubled real estate portfolio in 1991, Mutual of New York (MONY) took out full page newspaper advertisements and set up a toll-free phone number to reassure policyholders and pension clients, and to answer their questions. MONY also transferred $1.3 billion of its pension business to another company.[144] Similarly, when private rating agencies raised questions about the financial health of Travelers Corporation, the company increased its capital by convincing Primerica Corporation to purchase an equity share in Travelers. The infusion of cash was used by Travelers to bolster its financial condition and reassure policyholders.[145]

The absence of a lender of last resort for insurers reinforces the effects of market discipline.

The second important difference between insurance guaranty systems and deposit insurance is the way in which they are funded. Deposit insurance premiums are paid in advance. The deposit insurance premiums of a bank or thrift are not materially affected this year by the number of industry failures in the same year. By contrast, an insurance company's

[143]For a more complete discussion of the differences between life insurance companies and savings and loan associations, see Elijah Brewer III, Thomas H. Mondschean, and Philip E. Strahan, "Why the Life Insurance Industry Did Not Face an 'S&L-Type' Crisis," Federal Reserve Bank of Chicago *Economic Perspectives*, September/October 1993, pp. 12-23.

[144]Gart, p. 197.

[145]Other reasons also contributed to the Travelers/Primerica partnership. Ibid., p. 196.

cash flows, and often its profits, are affected directly by another insurer's failure in a given year. This seems to have led insurance companies to be more vigilant about bringing to the attention of insurance regulators the risky behavior of their competitors.[146] Healthy insurance companies should be particularly impatient with regulatory forbearance that keeps weak insurers open (and losing money) after they have become insolvent.

Finally, there are the political realities facing state insurance commissioners. Many states rely on insurance premium taxes as a substantial share of their total state revenues. When insurance failures occur and guaranty fund assessments are offset against state premium taxes, insurance commissioners may find themselves explaining to state legislators why the state's budget was suddenly thrown into deficit. This can have a negative impact on the state insurance commission's budget, on the insurance commissioner's ability to get desired legislation passed, and (in cases where the commissioner is a political appointee) on the political career of the commissioner.

Every system of financial guarantees creates some moral hazard.

When compared to the federal deposit insurance system, the current state insurance guaranty system seems to provide stronger incentives for policyholders, competitors, and state regulators to remain vigilant when an insurance company begins to exhibit signs of financial instability. It is important to remember, however, that every system of financial guarantees creates some moral hazard. As Scott Harrington has noted:

> Spreading the cost of insolvencies broadly through government guarantees reduces incentives for consumers to deal with safe firms and thus for firms to be safe. In practice, government regulation also is unlikely to offset fully the reduction in private monitoring. As a result, a point can be reached in which additional government guarantees increase the total cost of insolvencies, including the cost of monitoring.[147]

Without guaranty fund protection, policyholders would have even more incentive to buy policies only from financially stable insurers. Price would be weighed against financial strength when choosing an insurance company. Of course, many insurance customers might find it difficult to evaluate the relative financial strength of competing companies. But if just the larger policyholders become more vigilant, the financial health of the industry should improve as insurance companies compete for these large, safety-oriented policyholders. Further, many independent insurance agents help guide insurance consumers to safer companies by selling only policies from top-rated companies.[148] Agents and brokers whose customers suffer losses when their insurance companies fail might soon find themselves without customers.[149]

[146]Of course, sometimes the "risky" behavior of which insurers complain is lower prices and more competitive attitudes.

[147]Harrington (1991), p. 58.

[148]Gart, p. 198.

[149]For further discussion of these points, see Harrington (1991), p. 58.

A Word about Regional Compacts

Differences in coverage between states has been the source of frequent complaints about the existing state insurance guaranty systems. Not only are there differences in coverage limits, there are also variations in who is covered. Some state systems cover all policyholders of a failed insurer domiciled in the state. Other systems cover only state residents, and there are variations on both these basic types. When an insurance customer owns a policy from a failed insurer that is neither licensed nor domiciled in the state where the customer lives, the insurance consumer is dependent on the guaranty system in place where the insolvent insurer is domiciled. In short, policyholders with similar claims against a failed insurer may be treated very differently depending on where they live.[150]

NCOIL has proposed interstate compacts as a solution to this lack of uniformity. Interstate compacts are meant to establish a uniform system for handling insurance company insolvencies that would eliminate both differences and gaps in guaranty fund coverage among contracting states.

As currently envisioned, the compact would create the Insurance Claimant Protection Commission, made up of insurance commissioners from the contracting states. The commission would act as receiver of failed insurance companies and it would coordinate the activities of the insurance guaranty funds in the member states. The commission would be able to promulgate statutes and regulations that would become binding on all member states, unless an individual state's legislature explicitly rejected the measure adopted by the commission. If a majority of the member states' legislatures rejected any particular measure, it would not bind any contracting state.[151]

Interstate compacts are meant to establish a uniform system for handling insurance company insolvencies that would eliminate both differences and gaps in guaranty fund coverage among contracting states.

The state compact proposals are attracting increased attention among state insurance regulators. During 1995, California, Illinois, Nebraska, and New Hampshire entered into an interstate receivership compact. Other states are considering joining. Insurance commissioners and state legislators clearly view this as a means of strengthening the current system and avoiding encroachment by federal regulators.

Rate Regulation

Regulation of insurance policies is generally assigned to the state in which the policyholder is located. Policy regulations address the rates or premiums charged and the terms of the contract. The states are typically more concerned with regulating policies sold to individuals than they are with commercial policies. Auto and homeowners insurance are often subject to state rate regulation, and health insurance policies sold to

[150]Donald M. Halperin, "The Compact Solution," *Best's Review*, Property/ Casualty Edition, June 1993, p. 58.

[151]Ibid.

individuals are typically subject to state controls regarding the terms of the policy. Among commercial lines of insurance, workers compensation policies are most frequently subject to state oversight. Because all employers must purchase workers compensation insurance, state laws and regulations typically specify how workers compensation claims will be handled and what benefits will be paid under different circumstances. States may also regulate the rates charged on this type of insurance. States also regulate insurance company advertising and other trade practices, and they regulate the relationships between insurance companies and independent agents. Responsibility for regulating these activities generally belongs to the state in which the activity in question takes place.

Most state insurance laws grant insurance commissioners the authority to prevent insurance companies from charging premiums that are excessive, inadequate, or discriminatory.

Most state insurance laws grant insurance commissioners the authority to prevent insurance companies from charging premiums that are excessive, inadequate, or discriminatory. Some states are more active than others in regulating rates:[152]

Where rate regulation is the most stringent, the state regulators establish the rates for certain lines of insurance, producing **state-made rates**.

More common are "prior approval" states. In a **strict prior approval** system, insurance companies must submit proposed changes in their premiums to the insurance commissioner and await approval before charging policyholders the new premiums.

Other states employ a system of **prior approval with an express deemer**. Proposed changes in rates must be filed with the state insurance commission, and new rates cannot take effect until a specified waiting period has elapsed. If the regulator does not disapprove the proposed new rates before the waiting period ends, they are deemed to be approved.

In **file-and-use rate regulation** schemes, the insurance companies must notify the insurance commissioner before changing their premiums.

Use-and-file systems allow insurance companies to change their premiums and then file the changes with the insurance commissioner's office. Although insurance laws in file-and-use and in use-and-file states are often vague about what happens once proposed rate changes have been filed, the common assumption is that regulators must take specific action within a "reasonable" period of time to prevent new rates from taking effect.

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[152]The following descriptions are taken from American Insurance Association, *State Rating Law Survey 1994* (Washington: AIA Law Publications, 1994), Introduction (preceding page 1).

TABLE IV-5

STATE RATING SYSTEMS

Rating System	General Property/Casualty[1]	Automobile[2]	Homeowners[3]	Workers Compensation[4]
State-Made Rates	0	1	0	1
Strict Prior Approval	2	3	3	7
Prior Approval with Express Deemer	22	22	23	22
File-and-Use	14	13	13	8
Use-and-File	11	10	10	6
Rate Filing Only	2	1	2	0
Flex Rating	0	2	1	1
No Filing	2	1	1	0

Source: American Insurance Association, State Rating Law Survey 1994 (*Washington: AIA Law Publications, 1994). The sample includes the District of Columbia, Puerto Rico, and the Virgin Islands.*

[1]Ibid., pp. 1-2. Some states apply different regulatory systems for commercial or personal lines of insurance, for example, or depending on whether the market is viewed as competitive or noncompetitive. In compiling the above numbers, I counted each state or territory only once, assigning it to the most liberal rating system that applies.

[2]Ibid., pp. 3-4. Where commercial and private lines of automobile insurance are subject to different regulatory regimes, I have assigned the state to the regime that applies for personal lines of insurance.

[3]Ibid., pp. 5-6.

[4]Ibid., pp. 7-8. Note that in Nevada, North Dakota, Ohio, Puerto Rico, Virgin Islands, Washington, West Virginia, and Wyoming, state monopoly funds provide workers' compensation insurance, and there are no private insurers.

States with **rate filing only** simply require insurance companies to file rates with the insurance commissioner. Often the law does not specify whether changes in rates should be filed before, on, or after the date on which the new rates become effective.

Flex-rating systems allow changes in rates (up or down) as long as the proposed changes are within a specified percentage of the preestablished base rate.

No-filing or **open competition** systems do not require insurance companies to file proposed rates with the insurance commissioner.

Table IV-5 identifies the number of states that use each type of rate regulation system for general property/casualty insurance, automobile insurance, homeowners insurance, and workers compensation insurance.

State regulation of insurance rates is likely to bias the system toward insurance premiums that are either too high or too low, depending on the more important source of political influence in the state rate regulation process. Where insurance companies have more influence over the process, administered rates are likely to be too high. When consumers groups exercise more political power, allowable premiums may be held below costs (at least for a time).

When state rate regulation began in earnest in the mid-1940s, most states set floors below which insurance rates could not go. Rates deemed to be "inadequate" were viewed as a threat to the solvency of the companies charging low rates and to their competitors (who might be forced to match low premiums to retain customers). But rate regulation focused on avoiding insurer insolvency often leads to rates that are too high. Premium floors protect inefficient insurance companies to the detriment of insurance consumers. Although nonprice competition for customers by insurance companies may dissipate some of the companies' profits, most policyholders would no doubt prefer to simply pay lower insurance premiums.[153]

When premiums are held below rates that cover costs and provide a reasonable profit, insurance firms will either exit the state entirely or reduce the number of policies written.

More recently, state rate regulation has often been preoccupied with establishing ceilings to protect insurance customers from "excessive" or "unaffordable" insurance premiums. When premiums are held below rates that cover costs and provide a reasonable profit, insurance firms will either exit the state entirely or reduce the number of policies written.[154] Although policyholders representing below-average risk may not suffer from a lack of available insurance, high-risk customers often find it increasingly difficult to obtain coverage in such environments.[155]

In short, the best regulator of insurance premiums is a competitive marketplace. As long as entry by new insurers is not restricted, competition will protect insurance consumers from excessive rates. Any success that an individual insurer or insurers in general might have in raising premiums too high would lead to higher-than-normal profits. These higher-than-normal profits would, first, lead insurers within the affected market to seek to expand their clientele (and hence their profits). In addition, new insurers

[153]Macey and Miller (p. 42) conclude that closely regulated premiums are more likely to be too high than too low, even in cases where the state insurance commission has not been "captured" by the insurance industry. Insurance rates set too low will ultimately lead insurance companies to exit the state or fail. Neither of these events is desirable from the perspective of insurance regulators.

[154]A "reasonable" profit is one that provides insurance company owners with returns similar to those that can be earned in other lines of business with similar risk. A lower rate of return will lead owners to withdraw their money from insurance companies and invest it elsewhere.

[155]For a more complete discussion of this issue, see Catherine England, "The Anti-Redlining Agenda," Competitive Enterprise Institute *Insurance Reform Project*, July 1994, pp. 12-13 or Christopher Saunders and Catherine England, "Resolving the New Jersey Auto Insurance Crisis," Citizens for a Sound Economy *Economic Perspective*, April 9, 1992, pp. 15-16.

(either new companies, existing companies that enter from other states, or existing companies that enter new lines of business) would be attracted to the profitable market. As the availability of insurance increased in the extraordinarily profitable market, competing companies would find they must offer lower premiums to sell more insurance. Premiums would decline, and the higher-than-normal profits would be eliminated. The speed with which premiums returned to normal would be determined by the ease of entry into the state insurance market and the particular line of business where high premiums existed.

Attempts by insurance companies to exit states that set rate ceilings below costs have led some states to impose withdrawal restrictions on exiting insurers. For example, Massachusetts requires exiting auto insurers to pay a fee to the state-run pool for high-risk drivers. New Jersey law allows the insurance commissioner to require insurers that seek to exit the auto market to give up their New Jersey insurance licenses for all other insurance lines as well. As a rule, such exit restrictions have not solved availability problems in states where they have been applied.[156]

Large insurance companies may generate enough "observations" of loss trends to use in setting premiums, but smaller companies are often dependent on the information that comes from industry-wide data analysis.

The Antitrust Exemption

The 1945 McCarran-Ferguson Act exempted the "business of insurance" from the Sherman Act, the Clayton Act, and the Federal Trade Commission Act to the extent that insurance companies are regulated by the states. The authors of the antitrust exemption seemed to have been particularly interested in protecting the ability of insurance companies to share information about loss costs.

Efficient pricing of insurance contracts requires insurance companies to estimate expected future losses. This process begins by examining historical loss data. Statistical analysis of historical loss data is more useful, however, when it comes from a large sample. Large insurance companies offering policies in several states may generate for themselves enough "observations" of loss trends to use in setting premiums, but smaller companies are often dependent on the information that comes from industry-wide data analysis. Furthermore, any company that considers providing a new line of coverage is initially dependent on data from other companies to begin to price the new insurance product. Access to industry-wide loss costs thus helps protect competition within the insurance industry by making entry into new markets or new lines of insurance less risky than it would be otherwise.

[156]See Saunders and England for a description of the problems that continued to face the New Jersey auto insurance market even after exit restrictions were imposed.

In addition to analyzing historical loss costs, the Insurance Services Office (ISO), which collects information for most property/casualty insurance lines, also attempts to calculate expected future loss costs.[157] In this effort, the ISO conducts two lines of analysis—loss development analysis and trend analysis.

For some insurance policies, claims payments may not be made for years, or even decades, after the policy is written and premiums collected. Loss development analysis is applied to these "long-tailed" risks. Loss development analysis uses new information about inflation trends, the number of claims on similar policies, and court decisions to estimate future claims costs likely to be associated with policies that were written in the past. Trend analysis, by contrast, attempts to forecast loss costs for the policies insurance companies expect to write. Trend analysis is designed to identify and take account of economic or legal changes that will cause loss costs on future contracts to deviate from past claims experience.

Standardized insurance contracts make it easier to shop for insurance because consumers need only compare rates rather than being required to compare policy terms as well.

The insurance industry also cooperates in the development of standardized policy forms.[158] Standardized insurance contracts make it easier for consumers to shop for insurance because consumers need only compare different companies' rates rather than being required to compare policy terms as well. Standardized forms also facilitate the collection of industry-wide loss data. Finally, standardized forms incorporate precise language, developed to ensure as consistent an interpretation of policy limits as possible.[159]

Finally, industry wide cooperation achieves economies of scale, because the data collection and analysis and the development of standardized forms need be done only once rather than by each individual insurance firm. Repealing the McCarran-Ferguson antitrust exemption could well lead to a less competitive, less efficient industry if it prevented such cooperation among insurance firms.

The antitrust exemption is not complete. The McCarran-Ferguson Act applies the Sherman Act to any agreement among insurance companies "to boycott, coerce, or intimidate," or to any act of "boycott, coercion, or intimidation." The antitrust exemption has been further eroded as courts have narrowed the definition of insurance and broadened the definition of boycott.[160] The boycott exception served as the basis for a lawsuit filed on March 22, 1988 by the attorneys general of California, New York,

[157]The National Council on Compensation Insurance provides similar analysis for workers compensation coverage. See Macey and Miller, p. 48.

[158]Policies are more standardized for lines of insurance offered to individuals than for commercial insurance lines. Macey and Miller, p. 52.

[159]When claims are made, precise policy language helps protect both insurance companies and policyholders from opportunistic behavior by the other party.

[160]Patricia M. Danzon, "The McCarran-Ferguson Act: Anticompetitive or Procompetitive?" *Regulation* 15 (Spring 1992), p. 38.

Massachusetts, West Virginia, Alabama, Minnesota, Wisconsin, and Texas against Aetna Life and Casualty, Cigna, Allstate, and Hartford Fire Insurance.[161] Before the case was settled in October 1994, 20 states had joined in the suit against 32 insurance companies in the United States and abroad.[162]

The states' attorneys general charged the insurance companies with "boycotts, threats, intimidation, and other coercive conduct" leading to a shortage of general liability and pollution insurance during the 1980s.[163] Of particular concern to the attorneys general was the fundamental change during the mid-1980s in the way general liability insurance contracts were written. Traditionally, these contracts were written on an "occurrence" basis. The insurance company with a contract in force at the time the injury occurred was responsible for paying insured damages whenever the claim was made. In some cases, insurance companies were asked to pay claims decades after the applicable policy had expired.[164]

Insurers argued that changes in the standard contracts were necessary because of rising and increasingly unpredictable court awards in tort cases and pollution liability cases brought against policyholders.

Insurance company executives freely admitted that they met among themselves, with domestic and foreign reinsurers, and with the staff of the ISO as they debated changes in general liability insurance contracts offered to municipalities and businesses. Discussions among insurers also addressed how to better control losses on pollution insurance. Insurers argued that changes in the standard contracts were necessary because of rising and increasingly unpredictable court awards in tort cases and pollution liability cases brought against policyholders.[165] As a result of these discussions, "claims made" policies were ultimately introduced by the industry. Under the terms of claims made contracts, insurance companies (and their reinsurers) agreed to pay only those claims brought while the insurance contract was in force, regardless of when the injury occurred. The advantage of such policies was that once a claims made policy lapsed (or was not renewed), the insurer's liability also ended.

[161]Christopher Farrell, Resa W. King, Joan O'C. Hamilton, and Paula Dwyer, "An Avalanche of Lawsuits Descends on Insurers," *Business Week*, April 11, 1988, p. 60.

[162]Kirk Johnson, "Big Lawsuit Is Settled by 32 Insurers," *New York Times*, October 7, 1994, p. D7.

[163]Farrell, et al., p. 61.

[164]The courts' interpretations of the common law of torts also changed during this period, substantially lengthening the period during which suits claiming damages could be brought. See Peter Huber, *Liability: The Legal Revolution and Its Consequences* (New York: Basic Books, Inc., 1988), pp. 84-97.

[165]Henry J. Reske, "Was It Collusion or Just Good Business?" *ABA Journal*, May 1993, p. 78.

$36 million was earmarked to develop an education program to provide information to businesses and local governments about insurance rates, available coverage, and risk-management techniques.

The federal court in the Northern District of California dismissed the suit in October 1989, holding that the insurers were protected by the McCarran-Ferguson Act. The Ninth Circuit Court of Appeals in San Francisco reversed the District Court's decision and ordered the case to trial. The insurance companies then appealed to the Supreme Court, which agreed to hear the case in October 1992.[166] The Supreme Court ultimately allowed the case to proceed.

In October 1994, the insurance companies, the ISO, and the states agreed to a $36 million out-of-court settlement. The insurance companies admitted no wrongdoing, but they did agree to reconfigure the ISO board, shifting majority control to individuals from outside the industry. The $36 million was earmarked to develop an education program to provide information to businesses and local governments about insurance rates, available coverage, and risk-management techniques. Insurers also agreed to create a database to provide insurance risk data to government agencies.[167]

[166]Ibid.

[167]Leslie Scism, "Insurers Settle Antitrust Suit over Collusion," *Wall Street Journal*, October 7, 1994, p. A2.

V. POLICY ISSUES

We began by discussing the role played by private insurance in a market economy. As individual consumers, when we buy insurance, we buy increased peace of mind. Insured-against events, if they occur, will not be as large a financial burden as they might be without insurance. With insurance, we exchange the chance of a large, unexpected payment, whose timing we cannot control, for a series of smaller, known payments over the life of the insurance contract. Finally, buying insurance buys us private risk analysis. With insurance, it is the insurance company that must determine how many 30-year-old houses will catch fire this year and what steps can be taken to reduce that probability.

Insurance companies share this information with consumers through differences in premiums. We can learn something about what actions or changes reduce risk by finding out what earns a discount or leads to lower insurance premiums. We can learn about the crash worthiness and expected repair costs for different models of cars by comparing the costs of insuring them. An individual thinking about buying a house on an Atlantic coast beach or a similar house on an inland lake will find that homeowners premiums (especially for windstorm damage) are generally higher for the beach house. But there are also construction techniques that, if adhered to, will reduce the risk of flood and windstorm damage for the beach house. By pricing risks, or even refusing to insure against some hazards, insurance provides incentives to reduce the risks we face. .

To realize these broader benefits of insurance, private insurance markets must exhibit three fundamental elements.

Society as a whole also gains from the development of private insurance markets. Insurance allows us to protect our wealth more efficiently, and wealthier societies typically demand more insurance. With our wealth better protected, funds can be invested in other activities (businesses or education, for example) rather than being set aside for unforeseeable contingencies. Insurance thus allows both insured individuals and society to operate with longer time horizons.

The Business of Insurance

To realize these broader benefits of insurance, private insurance markets must exhibit three fundamental elements. First, premiums must be risk-based. Second, insurance markets must remain competitive. Third, insurance companies must be allowed to earn (but they should not be promised) profits.

Risk-based premiums are a key part of any "insurance" product. Financial promises called "insurance" may be provided (usually by the government) through a one-price-fits-all mechanism, but such promises are not really insurance. They are more properly recognized as a type of communal compensation and loss-sharing scheme.

True insurance does not "spread" risk. Insurance is more accurately described as a contract that transfers from the policyholder to the insurance company part of the risk of financial losses associated with insured-against events. To better manage their exposure, insurance companies tend to pool the risks they accept. But the pools created by private insurance companies are pools of similar risks. Most important, premiums paid by an individual policyholder reflect the probability that he or she will make a claim, not the probability that someone somewhere will make a claim.

In insurance markets, as in other markets, consumers' interests are best protected by competition. Competition (and potential competition) forces insurance companies to remain efficient, to control administrative and claims costs. Competition forces insurance companies to base premiums on expected future losses; it prevents them from passing along past losses to new policyholders. Competition leads insurance companies to pay claims promptly and serve policyholders well. Finally, it is competition that encourages innovation and leads insurers to attempt to extend insurance markets into currently underserved areas. In a competitive market, insurers only grow and thrive to the extent that they meet customers' needs.

Political decisionmakers who proclaim their interest in protecting the public would do well to begin by looking at the government's own rules that make the insurance market less competitive than it might be otherwise.

As a rule, governments best foster a competitive environment by staying out of the way. Government-imposed rules and regulations are more likely to inhibit competition than to promote it. Regulation of rates, artificial caps on profits, unnecessarily high entry restrictions, and limits on the variations in contracts may serve some purpose, but they also discourage vigorous competition. Political decisionmakers who proclaim their interest in protecting the public would do well to begin by looking at the government's own rules that make the insurance market less competitive than it might be otherwise.

Finally, it is vital that insurance companies be allowed to earn a profit. It is equally important that insurers are not guaranteed a profit. Profits play an important role in a market economy. Possible profits provide insurance company owners and managers with an incentive to provide insurance services to consumers. The possibility of increasing their profits provides insurers with an incentive to find better ways to serve their customers. When profits are artificially restricted by government fiat, consumers have no way to reward insurers that do a better than average job, and insurers have no incentive to develop new insurance products that meet the needs of underserved market segments. As a rule, consumer satisfaction with the insurance industry generally declines when governments impose limits on insurance company profits.

The ability of insurance companies to earn profits also directly affects the supply of insurance available. The amount of insurance the company can have in force at any given time, its capacity, is determined by an insurer's financial capital, or the owners' share of the assets of the firm.

To add more capacity and to increase the number of new policies it can write, an insurance company must increase its paid-in capital and surplus. Mutual insurance companies (those owned by their policyholders) typically increase their capacity through retaining profits in the firm. Reduced profitability thus leads to reduced long-term capacity for mutually-owned insurers. Stock-held insurance companies do have the option of raising additional capital by selling more shares of stock. But insurance companies compete with other firms in their attempts to attract investors to buy and hold their stock. Investors will continue to hold insurance company stock only as long as the return on the stock is equal to or higher than returns on other investments of similar risk. When insurers' profits are limited artificially, investors take their money out of insurance companies and invest it in industries offering higher returns. Insurance industry capital, and hence its capacity, declines. Consequently, the amount of insurance available is reduced.

Limits to Private Insurance Markets

In a private market, consumers purchase insurance only when the protection they receive is worth the price they pay.

It is also necessary to recognize the limits to what insurance can do. In the absence of active government participation, insurance companies cannot force individuals to do anything. Neither a single insurance company nor the insurance industry can require people to buy insurance products. In a private market, consumers purchase insurance only when the protection they receive is worth the price they pay. Only the government can insist that individuals buy insurance products they do not believe are worth the price. Insurance companies cannot prevent people from taking risks. Insurance companies can only provide incentives for safer behavior through their pricing policies.

Insurance cannot undo many of the harms caused by insured-against events. Insurance often cannot make individuals 100-percent "whole." What insurance provides is some financial compensation, agreed to in advance, to help reduce the burden of fires, accidents, floods, and other insured-against injuries.

In the long run, private insurers can only compensate policyholders to the limits of the insurance contracts in force. Policyholders should certainly receive the coverage for which they pay premiums, but they should expect no more than what they purchase. Private insurance cannot survive as an after-the-fact compensation scheme. Policyholders cannot wait until after the accident or flood to decide what coverage they should have purchased. (Nor can insurers determine after-the-fact that they would rather have provided less coverage.) Insurers cannot pay out (for long) more than they take in. Insurance is a business, not a charity, and if it is treated like the latter, capacity will evaporate.

In a well-functioning, competitive market, insurance is priced prospectively, not retrospectively. Policymakers' attempts to require insurance companies to base premiums on historical loss costs is an attempt to change the nature of the business from insurance to a public utility. Such a change is not in the best interest of consumers. Utilities are guaranteed a profit, even when they do not serve consumers well. Utilities do not compete, and when it is political decisionmakers who determine which expenses are allowable and which are not, innovation is reduced.

Throughout the history of insurance, the trend has been (and remains) to find ways to offer more coverage, ways to expand the limits of what is insurable.

There are also some events that are not insurable. Private insurance is generally not available for events that are either extremely unlikely to occur or for events that are extremely likely to occur. In the first case, there is no demand for insurance. In the second case, the premiums are so high that potential insurance consumers are better off saving their money and insuring themselves (or engaging in other risk-reducing activities). There are losses that are too small to insure, and there are losses so large that private insurance cannot provide coverage, except perhaps for a part of the loss. Although there are limits to the coverage private insurers provide, throughout the history of insurance, the trend has been (and remains) to find ways to offer more coverage, ways to expand the limits of what is insurable.

Poorly Functioning Insurance Markets

When private insurance companies are asked to do things they cannot do, or when policymakers ignore the elements needed to allow insurance markets to function properly, problems develop. Among the most common problems are those that arise because state policymakers limit the extent to which risk is reflected in premiums.

Insurance companies are forced to use risk-based pricing wherever consumers can choose to buy or not to buy insurance. Absent coercion, one-price-fits-all insurance markets are unstable because of adverse selection. Regulations that mute or eliminate risk-based pricing are designed to generate cross-subsidies. When individuals with a lower-than-average probability of collecting from the common pool realize they are paying for the compensation of individuals with higher-than-average collection rates, the lower risk individuals will exit the market (if they can), leaving the compensation pool with an increasingly risky clientele. The coverage received by individuals who represent less risk is less valuable than the premiums they are asked to pay. To avoid financial collapse, compensation schemes that do not vary premiums with individual risk must use government force to require low-risk individuals to participate.

Many of the societal benefits of insurance disappear in the absence of risk-based pricing. Communal compensation and loss-sharing schemes encourage risk taking rather than discourage it. Under such a system, the incentive is to make a claim. Without risk-based pricing, premiums do not

respond to individual behavior. Individuals who take care to make fewer claims pay the same premiums as individuals who make more frequent claims on the system. It is not surprising that compensation systems without risk-sensitive pricing generally see total claims costs rise as claims increase in number and average size.

Furthermore, when premiums or overall profits are artificially restricted, the market becomes less attractive to newcomers and competition is reduced. If profits are reduced enough, insurance capacity will begin to evaporate, reducing the supply of insurance available. A shrinking insurance market will slow economic growth in a state, and the threat that insurance may not be available when needed makes long-term planning more difficult.

Without risk-based pricing, premiums do not respond to individual behavior.

Ultimately, shrinking insurance markets invite further government involvement. Involuntary insurance markets are created. Taxpayers are forced to subsidize insurance rates, and the government becomes more involved in telling people what they can and cannot do.

CONCLUSION

Private insurance plays a role in the economic body similar to the nervous system in the human body. Just as a human's nervous system warns of danger through sensing changes in temperature or pressure and (ultimately) pain, a well-functioning private insurance market sends signals to economic actors about riskier and less risky activities. Regulatory policies that interfere with the "insurance" process interfere with the "pain" signals insurers would normally send to homeowners building in flood plains or on earthquake faults. When insurance premiums do not reflect differences in risk, society may not realize that it is being "burned" until after considerable damage has been done.

In short, insurance provides a market-based system of risk management.

In short, insurance provides a market-based system of risk management. But a private insurance market always leaves individuals the ability to make another choice—to take a risk. For people whose abilities or talents or predilections do not fit the "average probabilities," this freedom to take responsibility can be important. Society advances, after all, not by taking the safe and familiar paths, but by taking risks in an informed, conscientious way.

When government decisionmakers attempt to turn the insurance industry into a utility, with regulated rates and government-sponsored demands that consumers purchase coverage, they undermine many of the benefits that arise from a private insurance system. Increased government influence over risk-taking will tend to confine the economy to the better known paths. But government rules that limit economic actors' ability to try new ways of doing things also ultimately reduce our horizons and our ability to grow.

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