

Editors' Summary

RICHARD J. HERRING
ROBERT E. LITAN

IMAGINE A SOCIETY where no one could insure against the costs of being treated for a life-threatening disease; where drivers could not insure against the costs of accidents, to themselves or third parties; where homeowners could not protect themselves against the financial costs of fires and windstorms; and where firms and professionals could not protect against the financial costs of liability for harm to third parties. Without the ability to transfer these types of financial risks to insurers, members of such a society would be much less willing to take risks in consumption and investment decisions that are critical to the dynamism of capitalist economies. And consequently, such a society would be far less productive than the one in which we now live.

Yet as important as insurance is to the functioning of modern economies, it is probably the least well understood of all the financial services commonly sold in the marketplace today. Various events in recent years, however, have focused public attention on the insurance industry. Controversy surrounding the system of medical malpractice insurance has again surfaced, with insurance rates for certain specialties skyrocketing in some states and critics charging that the current approach compensates victims poorly, entails enormous overhead costs, and fails to discipline malpractitioners effectively. Recently, even homeowners' insurance has raised public policy concerns as insurers attempt to limit their exposure to new types of litigation, such as that over toxic mold in homes, as well as to catastrophic

losses. And, most notably, the terrorist acts of September 11, 2001, prompted the U.S. Congress to enact legislation providing federal reinsurance to private insurers for losses caused by terrorist acts beyond a certain threshold. This legislation will expire next year, unless Congress takes action.

Thus it seemed appropriate for insurance to be the focus of the seventh annual conference on financial services issues sponsored by the Brookings Institution and the Wharton School of the University of Pennsylvania, held at Brookings in January 2004. This summary presents the key findings and conclusions contained in the six papers prepared for the conference. All of the papers stimulated lively discussions among the experts who attended the conference, and these discussions are summarized following each paper.

The Theory and Practice of Insurance: Why the Disjunction?

Economists and insurance experts have studied the industry for many years and have developed a series of theoretical concepts to explain how insurance markets function. This view of the demand for insurance was summed up by one conference participant who noted that an economically rational consumer would understand that, apart from certain tax benefits, when you buy insurance, you are making a bet with an insurance company, which the insurance company wins, on average, because it must cover administrative costs and earn a competitive return for its shareholders. From this perspective, it makes sense to insure only against very large potential losses that would make a difference in your standard of living.

But that is not how consumers behave in many circumstances. For example, one of the fastest-growing insurance markets is repair or replacement insurance for relatively inexpensive electronic products that seldom fail. Usually the insurance is priced as if the risk of failure were much higher than it actually is. Nonetheless, for some products nearly 80 percent of consumers opt for insurance, even though the loss would not have an appreciable impact on their standard of living. Similarly, consider the case of a seventy-year-old widow with three children, all of whom are richer than she. The greatest risk she faces is loss of income, and thus she should buy annuities rather than life insurance. But if the widow behaves like her peers, she is seven times more likely to buy life insurance than annuities.

Just as the demand for insurance seems to diverge from the theoretical, rational paradigm, the supply of insurance also seems to depart from the

standard model. For example, in most markets, an increase in demand raises the price and increases the supply. But when the perceived risk of a terrorist incident went from negligible to plausible in the wake of the tragedy on September 11, 2001, demand for terrorist coverage surely increased, but the voluntary supply of such insurance virtually disappeared.

Professors David Cutler and Richard Zeckhauser of Harvard University use these conundrums to argue, in a comprehensive and thought-provoking paper, that there is a systematic tendency for practice to diverge from theory in insurance markets. One consequence is that insurance is often purchased when theory suggests it should not be (life insurance among the elderly), while many substantial risks that should be insured (terrorism) are not. A second consequence is that there are significant mismatches between entities that should bear risk (financial markets) and those that actually do (governments and private and mutual insurance companies).

The authors explore several reasons for the discrepancy between theory and practice. On the demand side, they suggest that the standard model of utility maximization needs to be extended to take account of some of the findings of behavioral economic research. For example, individuals appear to have an aversion to any loss and will pay far more than the expected loss to protect against even small losses. Similarly some evidence shows that individuals significantly overestimate the magnitude of the negative experience from a loss.

On the supply side, they argue that insurers are often risk averse and feel unable to diversify their risks, as in the case of terrorism (where events may be hugely costly and highly correlated) and long-term health care (where it is not possible to diversify the risks cross-sectionally). As a solution to this supply problem, they argue that risk spreading should be encouraged beyond the "narrow confines of primary insurance and reinsurance" to include financial instruments that tap the enormous pool of insurance dollars in global financial markets.

The Crisis in Medical Malpractice

In several states, medical malpractice insurance has become either prohibitively expensive or totally unavailable. This experience follows a relatively quiescent period in the market, when such insurance was broadly available, but seems to echo an earlier crisis in malpractice insurance in the

1970s. Then, many states changed their tort laws to make it more difficult to sue physicians and to cap awards for noneconomic damages suffered by patients. Insurers also took steps to limit their own risks, most prominently by replacing the “occurrence” policy (which covered malpractice as long as it occurred during the policy period) with a “claims-made” policy (covering only those claims filed during the policy period). Moreover, doctors began to self-insure by forming their own mutual companies and “risk retention groups” to cover their malpractice liabilities. And some states adopted measures to assure the availability of insurance and reduce its cost to physicians. These measures included joint underwriting associations for physicians who are unable to obtain coverage in the voluntary market and patient compensation funds that limit the physician’s liability at some threshold but provide additional compensation to the patient up to a higher threshold.

In view of these reforms, it is somewhat surprising that the malpractice insurance crisis has recently reemerged. But the fact that the symptoms of the crisis—high insurance rates and unavailability of insurance—vary so widely across states suggests that it may be possible to evaluate the earlier reforms, which also varied across states. For example, malpractice insurance rates for general surgeons increased 75 percent in Dade County, Florida, but only 2 percent in Minnesota, for similar levels of coverage. In the second paper presented at the conference, three experts in medical malpractice insurance from the Wharton School—Patricia Danzon, Andrew Epstein, and Scott Johnson—wrestle with these issues, focusing primarily on the reasons for the cross-state variations.

The authors reach several conclusions, which they take pains to characterize as “tentative” given the paucity of appropriate data. They report that, while “shocks to insurer capital”—or high payouts—have not contributed to premium increases, they have induced some insurers to exit the market. The authors also find evidence that malpractice insurers did not set aside sufficient reserves against losses in the late 1990s and that subsequent revisions of loss forecasts have been positively associated with premium increases. Consistent with general evidence of underwriting cycles (discussed by Scott Harrington in the third paper in this volume), it appears that “excessive competition” during the “soft market” of the 1990s contributed to the “hard market” of recent years, with smaller insurers, especially recent entrants, leaving the market.

Finally, what impacts did various tort reforms have on the malpractice insurance market? Based on their statistical analysis, the authors conclude

that states that capped noneconomic damages and limited joint and several liability had significantly lower premium increases than states without these reforms. In contrast, joint underwriting associations and patient compensation funds did not halt the rise in premiums or reduce the probability that insurers will leave the market. In fact, these mechanisms perhaps tended to increase costs. Two of the states with joint underwriting associations—Pennsylvania and South Carolina—had among the largest cumulative rise in premiums over the period.

In a dinner speech to conference participants, Jay Fishman, chief executive officer of St. Paul Travelers, the largest company to withdraw from the medical malpractice insurance market, provided an important perspective on the authors' somewhat puzzling result that shocks to insurer capital (higher payouts) lead to exits from the market rather than to higher premiums. He explained that St. Paul Travelers' decision to exit the malpractice market stemmed from an analysis concluding that the firm could break even only if it raised premiums 30 percent annually for three years consecutively. In the company's view, such premium increases would lead to a "death spiral" of adverse selection, in which only the highest-risk physicians would purchase the insurance, thus raising future losses and requiring still higher premiums in the future. Fishman also cautioned that caps on pain and suffering awards were not the appropriate solution to the malpractice problem. In his view, a more realistic definition of malpractice is needed that takes account of the fact that, even when physicians take all reasonable precautions, the innovative and experimental treatments that modern medical science makes possible and patients demand do not always produce the desired result.

Tort Liability, Insurance Rates, and the Insurance Cycle

Medical malpractice is only a subset of larger concerns about the tort system generally and its relation to insurance rates and availability. In the next paper, a leading analyst of liability insurance markets, Scott Harrington of the University of South Carolina, reexamines these controversial issues.

It is common for analysts of insurance and participants in the market to characterize the business as going through a regular "underwriting cycle"—fluctuations between "soft" periods when premiums are stable or falling and coverage is readily available and then "hard" markets when premiums

soar and coverage is less available. Harrington notes that the most infamous example of a “hard” market is the liability insurance crisis of the mid-1980s. More recently, the market for commercial property and casualty insurance has hardened in the wake of September 11, while markets for general liability and medical malpractice are harder than in the past.

Harrington analyzes the various theories that have been advanced in the literature to explain the insurance cycle. Clearly, much of the variation in rates and availability reflects changes in the discounted value of expected claims (the so-called perfect markets hypothesis). But capacity constraints on the supply of capital available to insurers may also play a role. Mixed evidence supports this explanation in the case of hard markets. But evidence of the role of capacity constraints in soft markets is much weaker.

Nonetheless, taking all factors into account, there is good reason for believing that, as the tort liability system expands (both in the type of situations in which damages are awarded and in the amount of damages themselves), insurance rates will increase in the long run. Yet, as Harrington concludes, the case for tort reform does not rest solely on the impact of the tort system on insurance markets. The fundamental issue is whether the current system efficiently deters undesirable behavior.

Insuring against Terrorism: The Policy Challenge

No single event during the past several years has focused public attention on the importance of insurance as intensely as the terrorist attacks on the United States on September 11, 2001. That disaster led virtually all insurers to withdraw or seek to withdraw coverage for terrorist-related events, outcomes that were sanctioned in most states. At the same time, insurers and real estate developers, among others, urged the federal government to provide reinsurance to the primary insurers so that they could again offer terrorism coverage without the fear that another large-scale event could wipe them out. Eventually, Congress responded and the president signed into law the Terrorism Reinsurance Act (TRIA) of 2002, which set up a system of reinsurance under which insurers would pay premiums to the government *ex post*—or after another such event. Under TRIA, the federal government agreed to pay for 90 percent of an insurer’s losses after the

insurer first absorbed losses up to 7 percent of its earned premiums (the so-called "retention" level, which rose to 10 percent in 2004 and will increase to 15 percent in 2005). Since TRIA is set to expire next year and there are calls to extend it, this seems an appropriate time to review the act. Kent Smetters is particularly well qualified to undertake this review because he worked on the legislation at the Treasury Department while on leave from the Wharton School.

Smetters is highly skeptical of the need for government-provided reinsurance for terrorism and argues that other sorts of government policies contributed to the scarcity of terrorism insurance after September 11 and indeed to the inadequacy of insurance coverage for other sorts of large catastrophes. Tax policies that prevent insurers from setting aside tax-deductible reserves for catastrophes are one major factor.

The second major factor is regulatory and accounting policies that inhibit the ability of insurance companies to securitize large risks. Smetters believes that, in the absence of these restrictions, investment banks and insurers would develop capital market instruments that would diversify the risks of terrorism and other catastrophic losses. He notes that even losses ten times larger than the \$40 billion loss that occurred on September 11 are not uncommon in world capital markets. Indeed, U.S. capital markets alone routinely gain or lose \$100 billion on a daily basis and often several trillion dollars on a monthly basis.

Smetters argues that, if either or both of these factors were dealt with effectively, there would be no need for government-provided terrorism reinsurance. He believes that both unfettered insurance and capital markets could absorb large, even catastrophic, losses without undue stress.

Smetters reviews the most common arguments in favor of direct government intervention into the terrorism insurance market and finds most of them deficient because they fail to explain why the private market solution is inefficient. These include the difficulty of forecasting future losses, the magnitude of potential terrorist losses, asymmetric information between the government and private sector, and the fact that many people rationally forgo insurance because they believe the government will bail them out after a major loss. He does concede, however, that *mandatory* coverage might be justifiable for certain risks that are difficult to diversify in capital markets and that are borne by groups, such as homeowners and farmers, that the government is likely to bail out after a significant loss.

Brokers and the Insurance of “Non-Verifiable Losses”

Although insurance contracts are tightly worded documents, in the real world disputes often arise over whether coverage applies and, if so, to what extent. Indeed, according to Neil Doherty and Alexander Muermann of the Wharton School, insurers seem more prone to contesting large claims than they were in the past. They call such contested situations “non-verifiable losses” and seek to explain how insurance brokers play a role in resolving the disputes or in preventing them in the first instance.

Insurers often try a number of prevention techniques themselves. Because insurers make an investment in acquiring information about their larger customers and do not want to lose them, they have incentives to make reasonable offers to pay non-verifiable losses and thus avoid disputes. In addition, some insurers might assist their customers in controlling losses by providing engineering or risk reduction services.

Doherty and Muermann point out, however, that because the insurance brokerage market is highly concentrated—three brokers dominate the market—insurers who derive business from them have strong incentives to avoid the reputation of being unwilling to pay claims. Otherwise, the insurers may lose not only future referrals but some of their existing book of business as well. In addition, insurers that acquire a reputation as being an unwilling payer may have to accede to the demands of brokers for more compensation to steer business in their direction.

In short, the highly concentrated nature of the brokerage industry tends to work in favor of those who are insured if and when they experience non-verifiable losses. This may be the rare exception where a highly concentrated market structure works in favor of customers rather than producers.

Consolidation in the European Insurance Industry

With the development of a single European market, much consolidation among firms, both within European countries and across them, has taken place over the past decade. The insurance business has been no exception to this pattern. In the final paper presented at the conference, David Cummins of the Wharton School and Mary Weiss of Temple University examine whether these European mergers create value for shareholders.

In similar studies of mergers in the U.S. market, principally among banks, various authors have found a predictable pattern: while the stock prices of acquiring companies typically rise after a merger proposal is made, the prices of stocks of acquired companies generally remain unchanged or even drop. Does this pattern hold up for European insurance mergers?

Cummins and Weiss conduct an event-study analysis of stock prices before and after the mergers and confirm that this pattern generally holds. The results of the study show that, while insurance mergers across borders do not change shareholder value for acquirers one way or another, on average, mergers within the same country actually produce significant shareholder losses. In contrast, target companies see their shareholder value increase in both cross-border and within-country mergers, but more so for transactions where the two companies do business in the same country. Cross-border mergers clearly appear to generate net gains to shareholders (acquirers and targets combined), but within-country mergers seem more likely to destroy than to create shareholder value.

These results are relevant to policymakers, especially those concerned with market structure. For example, where shareholder gains arise from entrenchment of market power rather than from efficiencies, antitrust intervention may be warranted. Because insurers in cross-border deals probably are not direct competitors to begin with, their combinations should pose fewer antitrust concerns than within-country mergers (especially where insurance markets may already be concentrated). In contrast to the banking sector, where national bank regulators have often discouraged cross-border mergers, national insurance regulators have seldom intervened to protect national champions. These results are also useful to investors and managers of insurance companies as they consider which kinds of mergers are most likely to produce efficiencies and to enhance market opportunities and thus shareholder gains.

Conclusion

If any common lesson emerges from this conference, it is that insurance is too important to the fabric of the American economy—and indeed to our society generally—to be ignored. If individuals and businesses could not

obtain insurance against various causes of financial misfortune, the economy would be much less productive and consumption choices would be much more constrained. These papers represent the most sophisticated and best-informed economic analysis of the key policy issues concerning the insurance industry currently available. Yet the authors have been careful to underline the limits of their analysis. Many aspects of the behavior of insurance markets remain difficult to explain in terms of conventional economic analysis.

Economists, therefore, need to develop richer models to explain the actual behavior of insurance markets. But, even in the absence of new breakthroughs in economic analysis, current research provides a strong rationale for policymakers to reexamine the tax and regulatory policies that impede the performance of insurance markets and the allocation of public and private responsibility for the efficient provision of insurance.