

Southwest Economy



NASA/Kennedy Space Center

Seeding Technology with Defense Dollars

The United States responded to the September 11 attacks on New York and Washington by launching a global fight against terrorism, starting with the war in Afghanistan. The new focus on national security is altering the federal government's spending priorities. After the Carter–Reagan military build-up peaked in 1986, defense spending declined as a portion of total U.S. output through 2001, largely because of the Soviet Union's demise and the end of the Cold War (*Chart 1*). Now the terrorist threat is prompting a rise in spending for defense and homeland security. The White House proposes budget authority of \$427 billion in fiscal 2003, up 25 percent from 2001.

Economists distinguish between private and public goods. Private goods tend to benefit only the individual consumer. Capitalist societies rely on the private sector to produce cars, televisions, restaurant meals, accountants' services and millions of other goods. Through the interplay of supply and demand, markets determine what to produce, mobilize the necessary inputs and set prices. We pay individually, and we consume individually.

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Insurance: A Risk to the Economy?

Most people don't appreciate insurance until they need it. Or can't get it. Last year was a difficult one for the insurance industry. An unprecedented surge of catastrophic claims left the industry reeling.¹ In response to the unexpected rise in claims and weaker investment opportunities, the insurance industry cut back coverage and sharply increased premium rates.

Insurance is a valuable financial tool that boosts economic activity. By purchasing insurance, individuals and businesses share the risk of making investments and engaging in activities that they perceive as too risky to pursue on their own. Homeowners, automobile drivers, doctors and businesses can pay regular premiums to reduce the expense of an unpredictable event.

The insurance industry is an integral part of the economy. Insurance is required for operating a business and, in most states, for purchasing a home or automobile. Increases in insurance costs are taking a bite out of corporate

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profits and consumers' paychecks. Recent changes in the industry have made this financial tool more expensive and more difficult to obtain, which could reduce investment and slow the economic recovery.

The Economics of Insurance: Life's a Gamble

Most economic activities involve risk. Our society has developed mechanisms for reducing the amount of risk people bear from day to day. Futures markets, hedge funds and insurance are examples. By transferring risk to others, these mechanisms make it easier for people to make decisions when there is uncertainty.

To purchase insurance, an individual or business pays a fixed price to an insurer, who promises to pay a lump sum or periodic payments if a covered event happens within a specified time period (usually 12 months). For example, property owners buy insurance that will compensate them for a future loss, such as fire or theft. The risk of loss is transferred from the property owner to the insurance company.

The cost of the insurance—the premium—is calculated so that, on average, it is sufficient to pay the present value of expected future claims plus administrative costs and profit. Actuaries estimate the risk involved and determine the appropriate premium based on the level of risk.² Some risks are more difficult to estimate than others. Historical loss data are a good predictor of claims for personal automobile insurance, but catastrophic risks, such as earthquakes and hurricanes, are very difficult to predict. Other losses, such as mold, may not be envisioned as a potential large risk when insurers originally price the coverage. Still other losses emerge from court decisions that make insurance companies liable for claims the companies did not anticipate and did not price into the premium.

Insurers are able to bear the risk of unpredictable events by pooling a diversified group of customers. To insure its own risk portfolio, the company issuing the policy typically sells a percentage of

the risk to other insurance firms, referred to as reinsurance companies. Diversifying or spreading the risk to reinsurers helps protect the insurer from catastrophic losses.

Insurance coverage is available for many types of activities. Individual coverage can be purchased for life, disability, property, auto and health, while businesses can be insured for property, workers' compensation, catastrophic events and business interruption.³ In recent years, firms have found innovative ways to use insurance to hedge risk. Insurance is available to share the risk of potential lawsuits for company officers and directors. It can hedge losses a business might incur if it were unable to function.

An important source of income for insurance companies—particularly property casualty and life insurers—is the profits earned from invested premiums. Often companies use anticipated profits from investment earnings to reduce premiums to gain market share. Because investment earnings can be substantial, operating losses—that is, covered claims—often exceed premium income for several years. For property casualty insurers, covered claims have exceeded

premium income every year for the past 25 years (Chart 1).

The link between industry income and premiums contributes to an insurance cycle. This cycle is affected by many factors, including price competition, the availability and affordability of reinsurance, regulatory pressures, unplanned classes of losses and economic conditions. Insurance companies must maintain an adequate level of income or capital to cover potential claims. When insurance premium prices come down due to a limited number of claims or lucrative investment opportunities or both, the level of capital grows and the insurance market is referred to as "soft." High levels of capital and weak demand can lead to loosened underwriting standards. Competition drives down premium prices, and coverage is easily available.

When premiums are driven upward, such as when there is a large number of claims or a poor return on investment, capital may be depleted and the insurance market becomes "hard." When the market hardens, premiums rise and coverage levels decline substantially until capital is replenished, at which time the market softens and the cycle resumes.

The cycle most directly affects property casualty insurers, but it can influence other parts of the insurance market to the extent that a firm chooses to use income from one industry segment to finance expansion in others.

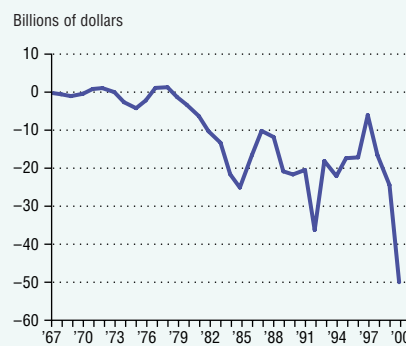
Insurance premium rates reflect financial market conditions as well as underwriting risk because of the extent to which insurers—particularly property casualty insurers—rely on investment income. When interest rates are low, some argue, insurers may not be experiencing a true "underwriting crisis" based on mispricing the risk but rather a misestimation of the investment income returns used to offset insufficient underwriting. There may be some correlation between property casualty insurance hard markets and trough periods in financial markets.

The Insurance Industry's Own Catastrophic Event

The 1990s were good years for those wanting to purchase insurance and the companies that sold it. Insurance was readily available and relatively inexpen-

Chart 1

Underwriting Gains and Losses for Property Casualty Insurance



NOTE: Gains and losses are the difference between premium income and covered claims plus administrative costs.

SOURCES: A.M. Best Aggregates and Averages, Property Casualty, 2000, for time series data 1967–1999; Thompson Financial Insurance Solutions for 2000 and 2001.

sive. A raging bull market led to a soft insurance market, in which insurers used healthy investment returns to hold down premium costs. Flush with cash, insurance firms sought market share with less concern for risk.

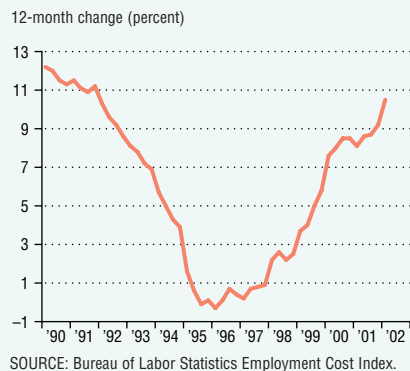
The insurance market began to harden in 2000, when growth in investment profits waned with the economy. By early 2001, faced with growing claims, the industry was having difficulty offsetting operating losses with investment income. Lower interest rates weakened earnings from bond holdings, and stock earnings plateaued. As capital was depleted, insurers were forced to evaluate risks more carefully, and premium rates began to rise to more fully reflect potential losses.

Then an unexpected thing happened to an industry that specializes in helping others deal with the unexpected. In the midst of a hardening insurance market, the industry had to absorb an unprecedented catastrophe: September 11. The terrorist attack was the largest single event in any segment of the industry, including health, workers' compensation, property, airline liability and the reinsurance market. Catastrophic losses in 2001 were the highest in the industry's history.⁴ Underwriting losses in the property casualty industry (claims and administrative fees exceeding premiums) were roughly \$50 billion in 2001 (see *Chart 1*). For the first year ever, insurers paid more for claims than they collected from premiums plus investment earnings.

The large volume of 2001 claims and mounting investment losses drained industry capital and accelerated the firming of the insurance market. Some of the investments that had produced hefty gains a couple years earlier were now reporting substantial losses.⁵ Administrative costs swelled, particularly for property and casualty insurers, because they need more information from policyholders to properly classify risk. While insurers must reassess the probability of terrorism and other catastrophic events, they must also take more care in classifying other risks. During the 1990s quest for market share, it was easier for insurance companies to absorb unexpected losses. Problems with rising noncatastrophic losses, such as mold and medical liability claims, were also easier to absorb.

Chart 2

Employers' Share of Health Insurance Premiums Continues to Accelerate



Insurance and reinsurance firms today can no longer absorb as much risk as they did in the 1990s, both because the industry has fewer assets to back the risk and because the risks that previously seemed remote are more probable now than they were only a few months ago. Terrorism coverage has become particularly problematic for insurance firms and businesses. Insurers are generally unwilling to issue policies for risks they believe are undiversifiable. While limited coverage is available at high prices, most reinsurance companies no longer offer terrorism coverage, citing an inability to project the frequency and magnitude of potential losses. This leaves primary insurance companies with no way to insure their risk, while they are locked in to existing policies until renewal. Further, in some states regulators require insurers to offer coverage for certain risks, such as workers' compensation and fire, irrespective of their cause; exclusions for terrorism are not allowed.

To build capital and rein in exposure, some firms have stopped issuing policies for certain types of coverage. Others have drastically reduced coverage or are issuing policies only to customers perceived as low risk. Strains on the insurance market are heightening concerns about rising noncatastrophic claims, particularly in Texas, where costs for mold and medical malpractice claims have been skyrocketing. (See the box titled "Big Claims in Texas.")

The reduced supply of insurance

capacity has resulted in escalating premium prices. In 2001, written premiums rose by about 12 percent, according to a Standard & Poor's industry survey.⁶ Standard and Poor's estimates that overall premiums will grow 17 percent in 2002, with commercial lines up 30 percent. Some policyholders report premium increases of more than 200 percent.

A Damper on the Economy?

Insurance helps facilitate economic investment by encouraging people to take risky but economically beneficial actions. During the 1990s, consumers and investors benefited from the good fortunes of the insurance industry. Insurance firms garnered sizable investment earnings that were partly used to reduce premiums, making insurance a widely available and relatively affordable financial tool.

The recent sharp rise in premium prices is being felt across the economy, reducing consumer spending and business investment. For several months, the Federal Reserve's Beige Book has been reporting widespread concerns about insurance costs from businesses in all economic sectors. Recent surveys by the National Federation of Independent Business report that the cost and affordability of insurance are among the most important problems facing small businesses. According to the Employment Cost Index, employers' share of health insurance premiums resumed its acceleration in 2001, jumping 10.5 percent in the first quarter of 2002 (*Chart 2*). Hefty premium increases are pressuring the bottom line for many policyholders, particularly those located in high-risk areas or perceived as exposed to high-risk activities. However, the insurance cost increases remain a relatively small part of consumer spending.

The economy is also being affected by reduced use of this financial tool, particularly for property insurance, although the magnitude of this is unclear. Because of higher premiums and more rigorous underwriting standards, some policyholders are settling for reduced coverage; others are unable to obtain any coverage. In these instances, several outcomes may occur. Investors may continue to engage in the activity and bear more risk of loss themselves. Or, unable to reduce the investment risk, they may

choose not to invest at all. In both cases, the effects of the recent insurance market changes may take time to reverberate through the economy.

Investors who choose to bear more risk themselves will, in effect, be self-insuring. These individuals or firms may take actions to reduce the size or severity of potential losses. For example, they may purchase a new sprinkler system or burglar alarm, or they may set aside a fund to cover losses. These expenses could be considered part of the rising cost of insurance. If successful, they may not result in any additional effect on the economy. However, the rise in self-insurance is likely to lead to an increase in uninsured losses if preventive measures are not taken or are not sufficient. Expenses from uninsured losses will show up on corporate balance sheets and in homeowners' budgets as firms and families absorb unpredictable losses.

Investments that are being foregone in the new insurance climate may do even more economic damage. Lack of insurance is impairing certain business transactions, particularly those requiring aviation liability insurance and some types of property insurance. The lack of *affordable* insurance is causing even more deals to fall by the wayside. Again, it is difficult to determine the total effect of these disrupted transactions. But one thing is clear: They would likely have been successful in a softer insurance market. And without them, economic activity in the United States is less than it otherwise would have been.

Conclusion

2001 was a difficult year for insurers and policyholders. An unprecedented surge of catastrophic claims, caused primarily by the September 11 terrorist attacks, has led insurers to reassess the probability of future devastating losses. The large volume of claims could not have come at a tougher time for the industry. Weak growth in investment earnings in 2001 left insufficient industry capital to offset tremendous underwriting losses. Insurers have responded with significant premium increases and coverage reductions as they pull back on the amount of risk they are willing to take. As a result, insurance firms are again raising
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Big Claims in Texas

They say that everything is big in Texas, and the same is true for insurance claims. And, not surprisingly, insurance premiums. Texas homeowners pay the highest insurance rates in the country. Ultimately, insurance rates are linked to the cost of expected claims, including the probability of damages and the price of repair.

While the cost of living—and therefore the price of repair—is relatively low in Texas, the frequency of insurance claims has been high compared with other states. Over the last 50 years, Texas has had more catastrophic events than any other state.¹ Hurricanes, hailstorms, floods, tornadoes and high winds—Texas has had them all, and all cause significant property damage.

Texas also has some of the most generous home insurance policy provisions in the country. (State laws govern the provisions of policies insurers can issue.) For example, if a Texas homeowner's roof is damaged, it is fully replaced even if the roof was old and in poor condition before being damaged. This requires the insurance company to pay for routine maintenance as well as catastrophic damage, which results in higher premiums. In

early 2002, the state authorized the issuance of less comprehensive policies—similar to those issued in the rest of the United States—which are slowly being introduced to policyholders.

Recently, a wave of noncatastrophic claims—specifically from mold and medical liability—has stirred concern from insurers and policyholders alike.

Mold has been around for hundreds of millions of years and, in some forms, provides delectables for cheese and yogurt lovers. Recently, however, mold—particularly *Stachybotrys chartarum*—has stirred widespread fears of respiratory distress and insurable damage. Mold insurance claims have accelerated exponentially over the past few years, costing insurers more than \$1 billion in 2000–01. Over three-quarters of those claims are in Texas (*see chart*).

In many states mold damage is not covered, generally because it is considered a maintenance issue. A recent court case, however, confirmed the responsibility of Texas insurers to cover mold damage. In response, some insurers have increased homeowners' premiums, and the state's three largest insurers have stopped writing homeowners policies for new customers.

Medical malpractice insurance premiums have been escalating across the country, thanks to a rising number of lawsuits with hefty damage awards, settlements and legal expenses. The problem has become particularly severe in South Texas, where health conditions are among the nation's worst and the need for doctors is intense.

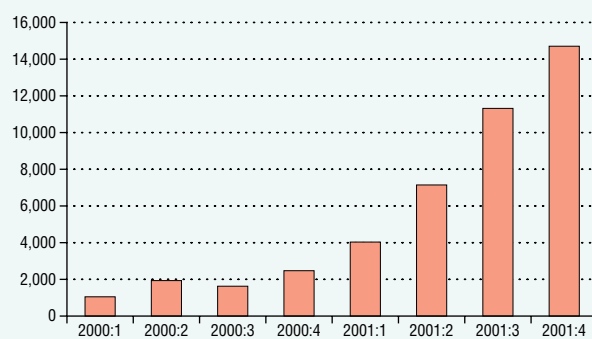
Recent increases in premiums have prompted doctors to rally for reform and insurance carriers to leave the market. Eight carriers have stopped issuing medical liability policies in Texas, and the remaining carriers have raised rates by 120 percent since 1999, according to the Texas Department of Insurance.² The department expects premiums for Texas doctors to rise by 20 percent this year, one of the largest increases in the nation.

According to the Texas State Board of Medical Examiners, as of April 16, 2002, just over half of all Texas doctors have at least one active malpractice claim filed against them, up from about 15 percent in 1992. In some specialties, such as cardiovascular, neurological, plastic, thoracic and orthopedic surgery, 75 percent or more of the doctors have at least one outstanding liability claim.

As with catastrophic events, noncatastrophic claims can be unpredictable and large. Problems such as mold and medical liability arise when the probability of such losses was not originally factored into the premium rates and when premiums fail to adjust quickly enough to changes in the probability of such claims. The insurance industry can absorb unexpected claims more easily in a soft market, when investment earnings are rich. Recent changes in the industry have accentuated problems with noncatastrophic claims because insurers can no longer afford to subsidize premiums for the sake of market share.

Texas Mold Claims Growing Rapidly

Estimated total number of claims



SOURCE: Texas Department of Insurance.

Notes

¹ Property Claim Services, a unit of Insurance Services Office, Inc., Jersey City, N.J.

² Texas Department of Insurance, <http://www.tdi.state.tx.us/commish/nr06282a.html>.

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premiums enough to cover claims and rebuild capital; the insurance cycle looks like it is beginning to turn.

Uncertainty remains for policyholders. Premium rates have increased, and uninsured property is vulnerable to unexpected losses. The insurance industry has shifted some risk back to property owners and stockholders. Recent changes in the industry are likely to make risk-averse individuals and businesses unwilling to engage in activities that are not covered by insurance or not covered at a price they can afford.

—Fiona Sigalla

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Notes

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- ¹ The insurance industry defines a catastrophe as an event that causes at least \$25 million in insured losses.
- ² The economics of insurance is greatly affected by the insurer's ability to obtain information about risk. Several well-known problems can occur when the insurer cannot clearly observe the insured's expected risk at the time the policy is issued. For example, the insured may hide risky behavior from the insurer (adverse selection), or an individual may choose to engage in atypically risky behavior after becoming insured (moral hazard).
- ³ Insurance companies also sell annuities, a combined insurance and investment product.
- ⁴ Property Claim Services, a unit of Insurance Services Office, Inc., Jersey City, N.J.
- ⁵ Insurance companies have reported losses from investments in Enron Corp., Kmart Corp., WorldCom Inc. and several dot-com companies.
- ⁶ *Insurance: Property-Casualty*, Standard & Poor's Industry Surveys, Vol. 170, no. 4, sec. 2, Jan. 24, 2002.

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