Regulation and the Automobile Insurance Crisis

J. David Cummins and Mary A. Weiss

As the price of automobile insurance continues to escalate, insurance buyers have become increasingly dissatisfied. Between 1984 and 1989 the annual rate of inflation in automobile insurance was 10.8 percent, contrasted with an inflation rate in the consumer price index of only 3.5 percent. The 10.8 percent figure is a national average; prices have risen more rapidly in states with serious insurance problems and for drivers with certain characteristics. It is not unusual for drivers in urban areas such as Philadelphia and Los Angeles to pay annual premiums exceeding $3,000. For some drivers the price of insurance has begun to approach the value of their insured vehicles. Not surprisingly, those high premiums have forced many drivers in urban areas to go without insurance. That practice further increases prices for drivers who continue to buy coverage, as prices for the uninsured motorist component of the auto policy rise more rapidly. What has gone wrong with auto insurance and what, if anything, can be done to solve the problem?

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Consumers and consumer organizations in many states have targeted the auto insurance industry as the primary source of the auto insurance crisis. Insurers have been accused of creating the auto insurance crisis through inefficient management, anticompetitive practices, and lax claims settlement policies. The contention is that insurers are "fat cats" who have had excessive freedom in generating exorbitant expenses, which are then passed along to the consumer in the form of higher premiums. That view has provided the underpinnings for the new regulatory movement in auto insurance. The most highly publicized example of the new wave of auto insurance regulation was California's Proposition 103.

Approved by California voters in 1989, Proposition 103 enacted sweeping changes in auto insurance regulation. It rolled back premium rates by 20 percent, reestablished rate regulation in a state where rates had been unregulated for decades, and called for an elected insurance commissioner. Although the rate rollback was later overturned by the courts, most of the Proposition 103 provisions have gone into effect. Less publicized but equally important changes have taken place in other states with auto insurance problems such as Pennsylvania, Massachusetts, and New Jersey. In addition to actions taken by individual states, attention on the national level has been directed at potential federal intervention. Insurers have long enjoyed

an exemption from federal antitrust laws under the McCarran-Ferguson Act, passed in 1945. As insurance problems have escalated, pressure has grown to repeal McCarran-Ferguson and to subject insurers to additional federal oversight. Is additional state and federal regulation the solution to the auto insurance crisis? We examine the auto insurance problem with particular emphasis on the role of regulation as a potential solution.

Trends in Insurance Regulation

Insurance is one of the most heavily regulated industries in the economy. Although regulation has existed for many years, considerable confusion exists about the purposes of regulation and its potential for solving problems in insurance markets. Many insurance buyers and consumer organizations view regulation as a panacea for any problem that develops in the market. Although regulation can help in some instances, it can also create or exacerbate existing problems. In many cases the best approach may be less rather than more regulation or different, more imaginative regulatory approaches, rather than the intrusive approaches that have been used traditionally. Since the U.S. economy is based on free-market principles, regulatory programs should be designed to complement rather than substitute for the operation of the market system.

Traditionally, states have regulated the insurance industry. Constitutional authority for state regulation in insurance was provided by the 1869 court case, *Paul* v. *Virginia,* decided by the U.S. Supreme Court. As a result of that case, insurance was regulated almost exclusively by the states for the following seventy-five years. State regulation proved to be inconsistent and ineffectual. By the 1930s there was a cartel of property-liability insurers that engaged in widespread anticompetitive practices such as price-fixing, allocation of markets, and boycott and intimidation of companies and agents that tried to challenge the cartel. Eventually, the U.S. attorney general intervened. The result was the landmark *Southeastern Underwriters* case, decided by the Supreme Court in 1944. That case overturned *Paul* v. *Virginia* and raised the possibility of transferring regulatory authority from the states to the federal government. Because the states had a financial interest in maintaining state regulation (states collect millions of dollars per year in state premium tax revenues), they were able to prevail on Congress to pass the McCarran-Ferguson Act. The act stated that continued state regulation and taxation of insurance was in the public interest and exempted insurers from federal antitrust laws (except for boycott, intimidation, and coercion) to the extent that the states enforced antitrust. In response to McCarran-Ferguson, states enacted new antitrust and rate regulatory laws. In addition, state regulators continued to focus on insolvency.

Rate Regulation. Most of the post-McCarran rate regulatory laws stipulate that rates should not be "excessive, inadequate, or unfairly discriminatory." Most states require companies to obtain *prior approval* from the state insurance commissioner for changes in rates. An important provision allows insurers to pool data through organizations known as *rating bureaus.* Rating bureaus (such as the Insurance Services Office) collect data and make it available to member companies for ratemaking. In addition, for many years the bureaus filed rates on behalf of their member companies so that most insurers doing business in any given state had the same rate structure. The Insurance Services Office voluntarily ended that practice in 1989. Pooling of data is still practiced and permissible, however.

Consumers and consumer organizations have accused the auto insurance industry of raising rates through inefficient management, anticompetitive practices, and lax claims settlement policies.

As insurance inflation emerged as a problem in the late 1960s and early 1970s, regulators began to place more emphasis on regulating rates. They devoted particular attention to the issue of investment income in ratemaking. Insurers collect premiums in advance of losses and hold the funds until losses are paid. In lines such as liability insurance, a considerable period of time may elapse between the premium collection and loss settlement dates. During that time period, insurers earn interest on policyholder funds held in reserves. Traditionally, there was no formal credit in premium rates for the interest income, which was referred to in the industry as "banking profits." As

interest rates rose during the 1960s, regulators began to take a closer look at the banking profits, and many states now require that investment income be recognized in the rates. That continues to be a controversial area of regulation.

About half the states regulate automobile insurance rates. Those states typically require prior approval of rate changes. Most other states have some form of "competitive" rating law that affords insurers more freedom in filing and changing rates. During the 1970s there was a trend toward competitive rating in automobile insurance. The prevailing economic theory (the late George Stigler's hypothesis) was that regulators tended to become "captured" by the regulated industry so that regulators work for the benefit of the industry rather than the public. In fact, in some industries regulated prices were higher than competitive prices. Although researchers have found that premium rates tended to decline in some states after regulatory repeal, the more consistent finding has been that regulation tends to depress premiums. On the whole, auto insurance prices tend to be lower in regulated states than in competitive states, a result that conflicts with Stigler's theory.

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Some observers point to the higher prices in unregulated ("competitive") states as evidence that insurance markets are not really competitive. They argue that the regulated prices are appropriate and provide insurers with fair profits, whereas the prices in so-called competitive jurisdictions are excessive. Others contend that insurance markets are competitive and hence that prices in competitive states are appropriate. They argue that regulators have tended to politicize the regulatory process with the result that insurers have not been permitted to earn fair profits in many regulated states. Availability and service problems may have developed in insurance markets as a result of that restrictive regulation.

Antitrust. The effectiveness of state antitrust regulation has also been called into question. Critics claim that states have been excessively lenient in permitting insurers to pool data and engage in cooperative ratemaking. The alleged result has been inefficiency and inordinate prices. The proposed remedy is to repeal the McCarran-Ferguson Act and to impose federal regulation. The validity of that approach hinges on the contention that insurers are inefficient and that insurance markets are noncompetitive.

Solvency Regulation. The traditional focus of regulation has been the maintenance of solvency. Insurers are required to file extensive financial reports ("annual statements") with state insurance commissioners. Commissioners also conduct detailed audits of all insurers at three- to five-year intervals. Although insurance solvency regulation absorbs a high proportion of the resources of the state regulatory system, it has been criticized as lax and ineffectual. Insolvency rates have grown in recent years, and there have been highly publicized instances of very large insurer insolvencies such as Mission Insurance, Transit Casualty, and Integrity Insurance Company. Clearly, state insurance commissioners did not take adequate steps to police irresponsible underwriting and financial manipulation.

In response to an earlier insolvency crisis, during the late 1960s, almost all states created insurance *guaranty funds* to pay the claims of policyholders of insolvent insurers. Guaranty funds work by assessing solvent insurers to discharge the obligations of firms that have failed. Although the system has been fairly effective in compensating claimants, it has also drawn criticism for potentially exacerbating the insolvency problem. Because guaranty funds protect policyholders from the consequences of insolvency but do not penalize the insurance company that takes excessive risk, they create an incentive for insurers to adopt riskier strategies. Because policyholders are protected from insurer insolvency by guaranty funds, they have a reduced incentive to seek out safe, stable insurers. Insurers are assessed by guaranty funds without any regard to the degree of risk they place on the fund. Thus, insurers can afford to increase risk (and their expected return), for example, by investing in riskier assets to increase investment income, without having to pay higher guaranty fund charges. That practice may lead to higher rates of insolvency and an increasing spiral of growing guaranty fund assessments.

Regulators are working at cross purposes in other ways with regard to maintaining insurance solvency. Although regulators have the obligation to protect the public against insurance insolvencies, rate regulation has tended to depress insurance rates. To the extent that rates are reduced below the fair competitive level, insurance companies are weakened financially. Thus, politicized rate regulation that places an added financial burden on the industry may lead to higher insolvency rates.

Rate Tempering and Market Failure

Regulators also have the responsibility to maintain rate *equity*. Rate equity is stipulated as a regulatory goal in insurance rating statutes through the requirement that rates not be "unfairly discriminatory." The usual definition of unfair discrimination is the existence of rate differentials that are not justified by cost differentials. For example, charging policyholders different rates although their expected losses are approximately the same would be viewed as unfairly discriminatory.

Although the goal of rate equity sounds reasonable in principle, as is the case with many regulatory goals, implementing the rate equity standard can have unintended adverse effects. The goal of equity interacts with that of *affordability*. As auto insurance prices have risen, political pressures have developed to hold down rates for drivers subject to higher prices. Statistically, certain types of drivers, such as youthful males, and certain geographical areas, such as inner cities, are subject to higher claims rates. The response of the insurance industry has been to charge higher prices to drivers in those categories.

Political opponents of the insurance industry's cost-based rating system have criticized that system by using several lines of attack. One is to contend that the industry's cost-based ratings are inaccurate. Opponents point to considerable *overlap* among drivers in various risk groups. They argue that relatively good drivers in high-rate categories such as inner cities may have lower loss costs than relatively bad drivers in low-rate classes and territories. Insurance rate classes are said to be overly heterogeneous; they group together drivers with significantly different expected losses and charge them the same premium rates. Second, opponents argue that rate classes rely too heavily on *proxy variables*. For example, women on average drive less than men, and so insurers use gender rating as a proxy for mileage, which is difficult to measure. The industry's critics call for the elimination of inaccurate classification criteria and proxy variables such as gender.

Some critics go even further by suggesting the flattening of rates across categories of drivers. They argue that it is socially inequitable for residents of cities to pay insurance rates that are four to five times as high as rates in the suburbs. Such rates may force urban drivers to go without insurance or to forgo driving altogether. This is said to create severe economic inequities by making it more difficult for urban drivers to get to work and thus possibly restricting their employment opportunities. In response to such criticism, policymakers in densely populated states with high insurance premiums such as New Jersey and Massachusetts have flattened or "tempered" rate categories to ease the premium burden on urban drivers.

While it is easy to sympathize with the social and economic problems of urban drivers, it is also important to recognize that rate tempering can have severe consequences for insurance markets. Economists have identified risk classification as a critical element in the economic viability of the insurance system. If insurers cannot charge premiums to drivers that fully recognize cost differences, low-cost ("low-risk") drivers end up subsidizing high-risk drivers because the low-risk drivers pay premiums in excess of their costs and high-risk drivers pay premiums that are less than their costs. Because the high-risk drivers are subsidized, they have a stronger incentive to buy insurance and may purchase higher coverage limits. The subsidies that are imposed on low-risk drivers, on the other hand, give those motorists an incentive to purchase lower coverage limits—the minimal coverage required by law—or to drop

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out of the insurance market altogether. With high risks comprising a larger component of the market, average costs will increase and premium rates must go up. The resulting increase in insurance inflation worsens the subsidy problem and may force additional low risks out of the market. The resulting price spiral ultimately may lead to market failure and the collapse of the insurance market.

A direct subsidy to urban drivers that could be used only for the purchase of basic auto insurance coverage would permit the insurance market to operate properly.

Market failure has occurred in two states that have long had severe insurance problems—New Jersey and Massachusetts. Both states have very high insurance rates because insurance costs are high. Insurance costs are high in those states because of high accident rates, high auto theft rates, and, at least in New Jersey, generous medical benefits provided in automobile insurance policies. Because of the high costs in those states, political pressures for rate relief have been intense for the past fifteen to twenty years. Both states have undertaken strict prior approval rate regulation that has made auto insurance unprofitable for the insurance industry. In addition, both states have engaged in rate tempering to reduce the cost burden on urban residents. As a result, the voluntary market for auto insurance has virtually ceased to exist. More than 50 percent of the drivers in each state are in the *residual market,* which provides a mechanism for insuring drivers who cannot obtain insurance in the normal voluntary insurance market. Having more than 50 percent of drivers in the residual market implies that insurers do not want to write insurance coverage on most drivers in the state. Thus, the companies have concluded that they cannot earn a fair profit on those policies. That market failure is due to premium tempering and restrictive rate regulation.

When a high proportion of drivers are being assigned to insurance companies involuntarily, the logical question is: Why do insurers not pull out of the market altogether in states like New Jersey and Massachusetts? Regulators engage in a form of regulatory blackmail to prevent insurers from withdrawing from the auto insurance market. Most insurers are not auto insurance specialists but rather write various types of insurance. A high proportion of revenues for most companies is derived from commercial coverages such as workers' compensation, commercial multiple peril, commercial auto, and general liability. If a company indicates its intention to withdraw from the private passenger automobile insurance market, the usual regulatory response is to threaten to cancel the insurer's licenses to write all types of coverage in the state. Thus, the insurer would have to give up profitable commercial writings to leave the auto market. Most insurers cannot afford to drop their commercial writings and thus are forced to absorb the losses imposed by restrictive auto insurance regulation.

The ramifications of restrictive regulation are even more far-reaching. Although companies may not be able to withdraw completely from unprofitable markets, there are other steps they can legally take to recoup lost profits. For example, insurers may cut back on services or delay claim payments to save money. Thus, buyers pay lower premiums than would be charged in the absence of regulation but also receive less valuable insurance coverage.

If restrictive rate regulation and rate tempering are not the answer to the social problems caused by high auto insurance costs, what should be done to provide rate relief to drivers in urban areas? The more appropriate approach would be a direct subsidy to such drivers that could be used only for the purchase of basic automobile insurance coverage. That would permit the insurance market to operate properly, providing the level of services and insurance availability desired by the majority of drivers, and would put an end to the destabilization created by regulatory tinkering.

It should be clear from this discussion that insurance regulation is a rather risky proposition. Well-intentioned regulatory responses may not only fail to solve problems but may actually destabilize markets. Most observers agree that it would be better to rely on competition to set prices and determine the services offered in the insurance market. That is not a viable option if the industry is not competitive, however.

The Auto Insurance Industry: Market Structure

The competitiveness or noncompetitiveness of the insurance industry has been the source of considerable controversy. On one side are the insurers, who contend that the industry is competitive and efficient and doing the best possible job under difficult circumstances. On the other side are consumers, consumer-activists, and many politicians, who accuse the industry of being inefficient and anticompetitive. The usual allegation is that the industry is earning excessive profits by pocketing investment income earned on policyholders' funds. To sort out the conflicting claims, we shall examine the structure, competitiveness, and profitability of the industry.

Although there are about 1,300 property-liability insurance companies and groups, the number of companies operating in any given market is considerably smaller because some firms specialize, either by line of business or by geographical area. To obtain a more accurate indication of the number of competitors, it is necessary to look at insurance markets by line of business and by state. In private passenger auto insurance the number of companies doing business in 1990 ranged from 35 in Hawaii to 150 in Illinois. The median number of companies by state was 97. The median of 97 firms is a sufficient number for competition to be at least potentially present. It is important to keep in mind, however, that not all insurers operating in a given state write business in all parts of the state and that some insurers do not issue coverage voluntarily on all types of drivers. Thus, competition may be present for the most economically attractive regions and driver types, but drivers with less desirable rating characteristics may tend to face limited options with regard to potential insurers. Enabling insurers to charge adequate rates in the "high risk" areas would lead to more competition in those markets.

Another indicator of market structure is the concentration ratio. Nationally, the leading firm, State Farm, accounts for 21 percent of the total premium volume in private passenger auto insurance. The top four firms account for 43.9 percent. By normal standards, that is not a level of concentration that would pose a significant threat to competition. In some states concentration is considerably higher, however. The four-firm concentration ratio ranges from 33 percent in New Hampshire to 81 percent in Alaska, and the median four-firm ratio is 57 percent. The median twenty-firm concentration ratio is 86 percent. Those levels of concentration are much higher than the national ratios usually mentioned in discussions of insurance markets and could conceivably be high enough to pose a competitive threat, depending on the other characteristics of the market.

"Oh, that! That just says that if you put in a claim — you're history."

Marketing Systems and Efficiency. One reason that most economists are not concerned about the overall level of concentration in the auto insurance market is that the market leaders have acquired their high market shares primarily by being more efficient. The efficiencies come primarily in marketing or distribution costs. On

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average, about one-fourth of the auto insurance premium goes for company marketing and administrative expenses. That component covers insurance home office expenses as well as marketing costs. Most of the market leaders in auto insurance use a distribution or marketing system called *direct writing.* Direct writers sell directly to the public either by using mail or telemarketing or by retaining *exclusive agents*—agents who represent only one company. State Farm, Allstate, and Nationwide all use exclusive agents. Other companies, including the more traditional firms such as Aetna, Travelers, and CIGNA, use another form of distribution system—independent agents. *Independent agents* represent several companies rather than place business exclusively with one company.

Although there are good reasons for the existence of independent agents, especially in the commercial lines, that distribution system is generally not so effective as direct writing for personal lines such as auto insurance. In 1990 the average expense ratio in private passenger auto insurance was 19.7 percent for direct writing companies and 28.8 percent for independent agency companies. Most of that differential is attributable to marketing costs. Although independent agents may provide more services in some instances, consumer surveys by organizations such as Consumers Union show no systematic service differential between independent and direct writing companies. In fact, direct writing companies regularly show up among the top rated firms in those surveys.

Increasing concentration in the private passenger auto insurance market is not necessarily anticompetitive because it brings greater efficiency to the market.

As a result of their efficiency advantage, direct writers now account for two-thirds of the personal auto insurance market. Because of the resources required to maintain an exclusive agency system, direct writers on average are larger than independent agency firms. But that larger scale generally is associated with more efficiency. Thus, increasing concentration in the private passenger auto insurance market is not necessarily anticompetitive because it brings greater efficiency to the market. As long as the market leaders do not become collusive or excessively profitable, market concentration in insurance should not be viewed automatically as providing a rationale for additional regulation.

Profitability. Profitability is perhaps the most confusing issue in the public policy debate on the auto insurance crisis. Insurers point out that they pay out billions of dollars more in losses and expenses than they take in each year in premiums: they almost always incur a large *underwriting loss* (defined as premiums minus losses and expenses). Consumer activists counter that insurers earn billions in investment income on policyholder funds that result in excessive profits. Both sides in this instance are factually correct. Insurers do incur underwriting losses and earn investment income. Neither side gives sufficient attention to the fact that it is the *net amount* earned by insurers that is relevant. That concept is pivotal, because it underlies both the rationale for and implementation of new insurance regulations in important regulatory jurisdictions across the country.

The first step in understanding the profitability issue is to realize that insurers must come to the market with equity capital, supplied by either stockholders or policyholders. Equity capital allows the company to offer the credible promise that claims will be paid when due. It provides a cushion to cover the eventuality that losses and expenses are higher than expected. As part of the solvency surveillance system, state regulators require that insurers maintain a reasonable amount of equity capital relative to premium writings.

Because equity capital has other potential uses besides backing up insurance liabilities, it is available only at a price, known as the *cost of capital.* Instead of putting funds into an insurance company, suppliers of equity capital can invest in other sectors of the economy. To attract capital into insurance, investors must receive a rate of return that is comparable to the return they can earn in other sectors of the economy on investments of *comparable risk.* The comparable risk standard provides the conceptual underpinnings for insurance rate regulation, and the same general concept applies to public utilities and other regulated industries.

Although there is little debate about the appropriateness of the comparable risk standard, the measurement of risk and return in insurance is plagued by controversy and serious pitfalls. Economists tend to agree that the appropriate rate of return for regulatory purposes is the *market rate of return* on equity. In concept, market return is easy to calculate. For example, assume that one invests $100 in a share of stock and sells it one year later for $115, after receiving a dividend of $5. The total amount received is $120 on a total investment of $100, for a return of 20 percent. The same concept applies in insurance. If investors put $100 million in equity into an insurance company, they expect to receive their investment back at the end of the year along with an adequate rate of return. Of course, expectations are not always realized. The investors may earn more or less than the expected amount, but that risk is one of the primary factors contributing to the need for the fair expected rate of return.

Measuring the fair rate of return in insurance is quite controversial. On one side are consumerists and many state regulators, who argue that the appropriate rate of return is the *book return* as shown on the company's financial statements. On the other side are most economists and a few regulators, who contend that the *market return* is the appropriate measure. Book return proponents usually place the cost of capital in insurance somewhere in the 10 to 12 percent range. Market return measures are usually higher, in the 15 to 17 percent range.

In principle, rate of return analysis is simple. Consider a simplified income statement for a hypothetical company with premiums of $100, losses of $90, expenses of $20, an underwriting profit of ($10), investment income of $30, and a net income (underwriting loss plus investment income) of $20. If the company has $100 in equity capital, the book rate of return is 20 percent.

The reason the company has an underwriting loss, on the average, is that it is earning investment income on policyholder funds. Part of the investment income of $30 is attributable to the investment of the premium of $100. That part of the investment earnings, less an appropriate profit, should be credited to policyholders in the rates. That is what the regulatory and actuarial methodologies designed to reflect investment income in the rates attempt to do. Thus, an important aspect of insurance rate of return analysis is the following principle: *an underwriting loss is the expected outcome in most cases because it provides a credit for investment income on policyholder funds.* That principle also applies in market rate of return analyses, but the ways of measuring the return differ.

If insurance accounting statements accurately reflected market values of assets and liabilities, the book versus market controversy would not exist because book and market returns would be equivalent. In reality, however, insurance accounting statements are an imperfect proxy for true market values. Consequently, calculating the rate of return on equity by using book data introduces serious errors.

Most regulatory applications of the book return methodology are based on *statutory* accounting data—data compiled in accordance with the regulations set forth by state insurance commissioners. Statutory accounting rules are designed primarily to provide a conservative indication of insurer solvency levels; they do not provide an accurate indication of market values. For example, bonds, which consistitute the largest single asset type on insurance company balance sheets, are valued at amortized cost rather than at market values. Loss reserves, the largest single liability item, are valued for statutory purposes at nominal values rather than at the discounted present values that would be used in a market valuation. There are numerous other statutory accounting anomalies that drive a wedge between statutory rates of return on equity and the market returns that should form the basis for regulatory rate of return analysis.

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Another important measurement issue in book rate of return analysis is the measurement of equity capital. The accounting definition of equity is assets minus liabilities: the total value of resources of the firm (assets) minus the amount

owed to policyholders and others is the amount available to equity holders. Book equity, computed in that way, is the denominator in the book rate of return measure.

Regulators and consumerists who use book rate of return analysis in insurance invariably make significant errors in measuring both book income and equity. As a result, book rate of return measures are virtually meaningless. Unfortunately, such measures have been used to set regulatory policy in important jurisdictions such as California, although appropriate market value techniques are readily available.

It is appropriate for policymakers to be aware of the realized book and market rates of return of the insurance industry as long as it is understood that realized returns over some prior period are not necessarily equal to expected returns in the future.

Regulatory book return analyses also usually ignore unrealized capital gains. Insurers and other investors purchase stocks with the expectation of earning a rate of return that includes both dividends and capital gains. The dividend return alone would not be adequate to induce investors to buy stocks, and no one outside the insurance regulatory community seriously advances a dividends-only theory of stock returns. Nevertheless, the approach used by most insurance regulators ignores unrealized capital gains.

Another fundamental mistake made by most insurance regulators is the failure to recognize the difference between *expected returns* and *realized returns.* Investors buy stocks with the *expectation* of earning a rate of return commensurate with the risk borne. For example, the investor might expect a rate of return of 15 percent on a stock of average risk. After holding the stock for some period of time, however, the investor may find that the actual rate of return has been less than 15 percent, say 5 percent. Although the investor will obviously be disappointed that his expectation was not borne out in that particular case, achieving a 5 percent realized return does not mean that the true expected return on the stock was 5 percent. Stocks are risky, and expectations are not always realized. The expected return on the stock during the coming period will be based on the company's prospects and the anticipated risk and cannot be equated with the realized return of the prior period.

The same analysis applies to insurance rate of return analysis. When the insurance industry goes through a period of low returns such as during 1984 and 1985, realized returns on both a book and a market value basis are very low. For example, the accounting return on equity in property-liability insurance was minus 1 percent in 1984. It should be obvious that the realization of a minus 1 percent return in 1984 does not imply that the expected rate of return on insurance stocks is minus 1 percent. No investor would buy a stock with an anticipated negative rate of return. Although regulators would not set the cost of capital in insurance at minus 1 percent, they regularly commit logical errors regarding realized versus expected returns by arbitrarily selecting historical time periods to compute book rates of return on equity and then using those returns as measures of expected returns in the future. Even if there were no difference between book and market rates of return on equity, it would be inappropriate to, say, use book return data from the period from 1981 to 1990 to estimate the appropriate rate of return on equity in insurance. That period was one of increasing risk and low returns in the insurance industry. Investors would not knowingly put their funds into a risky business such as insurance and expect to earn such low rates of return.

Insurance premiums should incorporate rates of return on equity adequate to attract capital into the industry on a prospective basis. If lower returns are used, the market will be destabilized, and price and availability problems will worsen. The inappropriate use of book rates of return in insurance regulation becomes a self-fulfilling prophecy. The appropriate way to measure the cost of capital in insurance is to use a prospective, market-value-based method. Such methods are discussed in textbooks on regulatory finance. Unfortunately, only a few regulatory jurisdictions are currently using such methods.

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Table 1: Property-Casualty Insurance Industry Rate of Return on Equity (percent)

Year	Statutory	GAAP No UCGs	GAAP with UCGs
1976	11.4	11.4	19.3
1977	23.0	21.3	18.6
1978	21.9	20.2	21.0
1979	18.2	16.7	20.9
1980	15.5	14.3	20.1
1981	12.9	12.0	8.8
1982	9.5	9.1	12.4
1983	8.8	8.5	10.0
1984	1.3	1.9	-1.0
1985	2.6	4.3	9.2
1986	15.0	15.1	16.7
1987	13.8	16.7	14.8
1988	13.4	14.5	16.0
1989	9.7	10.2	14.0
1990	7.8	8.4	4.7
Averages:			
1976–1990	12.3	12.3	13.7
1981–1990	9.5	10.1	10.6
1986–1990	11.9	13.0	13.2

Note: GAAP is generally accepted accounting principles. UCGs are unrealized capital gains.

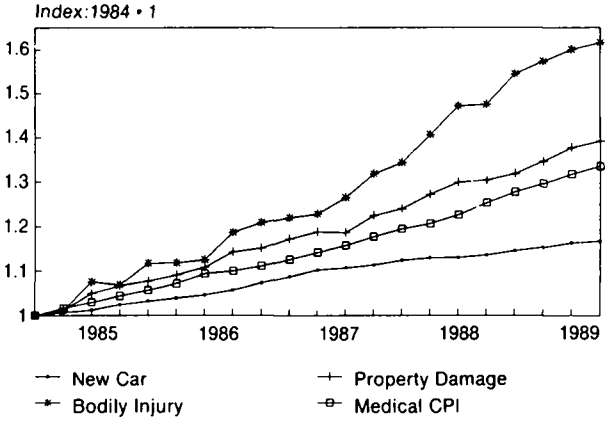
accounting principles (GAAP) for the period from 1976 to 1990. GAAP returns are based on the accounting rules set forth by the accounting profession for the certification of financial statements. GAAP accounting in general assumes that the firm is a *going concern*—it will continue operating in the future—whereas statutory accounting is based on the assumption that the firm will be liquidated. Statutory accounting is thus more conservative in general than GAAP accounting. Neither set of accounting rules produces market values, but GAAP returns are usually closer to market than statutory returns. Table 1 shows that the average statutory return over the period was 12.3 percent, while the average GAAP return was 12.3 percent, excluding unrealized capital gains, and 13.7 percent, including unrealized capital gains.

For purposes of comparison, the market returns on the Standard & Poor's Multiple Line and Property-Liability Insurer Stock Indexes for the period from 1986 to 1990 were .9 and 4.7 percent. The returns on those two indexes for the period from 1981 to 1990 were 8.2 and 10.1 percent. The returns on the Standard & Poor's 500 Stock Index for the periods from 1986 to 1990 and from 1981 to 1990 were 13.1 and 13.7 percent. Since the investment community views insurer stocks as average risk investments, those statistics indicate that the realized returns on insurer stocks have been significantly below the market-average returns for stocks of comparable risk. The conclusion to be drawn is that the 1980s were an especially difficult time for property-liability insurance companies. Insurers performed more poorly on a market value basis than other firms of comparable risk. Neither the book nor the market return statistics provide any evidence to support the allegation that insurers are earning excessive amounts of money from investment income on policyholder funds. Insurers in fact are not earning adequate rates of return to retain capital in the industry on a long-term basis.

Neither the book nor the market return statistics provide any evidence of insurers' earning excessive amounts of money from investment income on policyholder funds.

If insurers are not earning adequate returns, what has gone wrong? One major problem, which we have extensively documented elsewhere, is that insurers were hit by substantial unanticipated inflation in the costs of key goods and services paid for by insurance claim payments. Automobile insurance, the industry's major source of premium revenues, provides a case in point. Figure 1

Figure 1: Price Indexes, 1984–1989



shows the pure premiums for bodily injury liability and property damage liability insurance. Pure premiums are a measure of loss costs per car, the most important determinant of premiums charged to consumers. Both pure premium indexes grew at a rapid rate during the period from 1984 to 1989. The annualized inflation rates were 10.3 percent for bodily injury liability insurance and 6.4 percent for property damage liability insurance. During that period the CPI inflation rate was just 3.5 percent. The price indexes for medical care and new cars, important determinants of claim costs, also are plotted in Figure 1. Auto insurance pure premium inflation occurred at an even more rapid rate than those claim cost components.

By delaying rate changes and using inaccurate ratemaking methods and erroneous cost of capital measures, regulators unfairly penalize insurance company equity owners.

The consumerist view is that insurance claim costs have inflated rapidly owing to poor claims settlement practices by insurers. The usual argument is that insurers just settle claims and then pass the costs along to the buyer. The contention is that such a cost-plus pricing scheme provides no incentives for insurers to settle claims conscientiously. Although plausible on the surface, that argument does not stand up to rigorous examination. In fact, insurance premiums are set *before* claims are paid. Insurers cannot go back to the policyholders for additional premium payments if claims are higher than expected. If insurers can save $1 in claim payments, that $1 goes directly into profits. Conversely, paying excessive claims means a direct reduction in profits. Thus, insurers have every incentive to minimize claim payments.

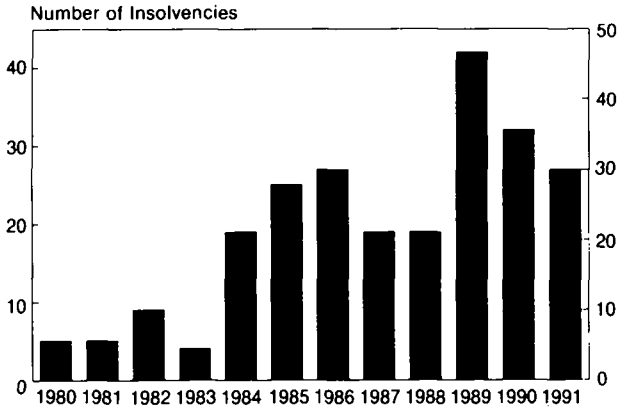
The real problem is not insurer claim settlement procedures, but rather the rapid inflation in the costs of insured goods and services. Part of the reason for that is the poorly designed automobile insurance compensation system. Insurance compensation in most states is handled under the tort system, which has been shown to lead to higher claims inflation than well-designed no-fault plans. Several key states have no-fault insurance laws with low dollar-denominated thresholds for filing pain and suffering claims. We have shown elsewhere that dollar-denominated no-fault thresholds are associated with relatively high claim cost inflation. To reduce the inflation rate, states should adopt no-fault laws with strict verbal thresholds that remove small liability claims from the system. Adopting programs to reduce insurance fraud, as suggested by Herbert Weisberg and Richard Derrig, also provides a promising way to control claim costs.

In a high inflation environment such as the 1980s, rate regulation imposes an additional cost on insurers. By delaying rate changes and using inaccurate ratemaking methods and erroneous cost of capital estimates, regulators unfairly penalize insurance company equity owners. The difference between the Standard & Poor's insurance market index returns and the NYSE returns during the 1980s provides an approximate indicator of the maximum amount of the penalty. The difference between the NYSE return and the average of the two insurance index returns for the 1981 to 1990 period was about 4 percent. If one-fourth of that was due to regulation, the loss to equity holders would have been about $1 billion per year during the 1980s. The loss during the late 1980s would have been even larger.

Unless there is a change in the nature of insurance regulation, the stock market will build the regulatory penalty into its expectations regarding the performance of insurance stocks. Stock prices will fall until the anticipated earnings, when divided by the lower equity value, provide a rate of return commensurate with the risk of operating an insurance company. That will impose an additional penalty on insurance equity owners and may also have long-range effects on the ability of the insurance industry to raise new equity capital.

Figure 2, which shows the number of property-liability insurance company insolvencies by year during the 1980s, provides further evidence of deterioration in insurance markets. During the crisis years of 1984 to 1986, the number of failures averaged about twenty-four per year. As insurance profitability increased, the number of failures dropped to nineteen in 1987 and 1988. But the situation deteriorated from 1989 to 1991: forty-two insurers failed in 1989, thirty-two in 1990, and twenty-seven in 1991. Those statistics provide clear danger signals about the property-liability insurance market. Earnings are excessively low

Figure 2: Insurance Insolvencies, 1980 to 1991



and an inordinate number of firms are failing. More restrictive rate regulation can only exacerbate the problem.

If regulation is not the answer, what should be done to bring insurance inflation under control? The only realistic solution is to cut inflation in insurance claim costs. Insurers can play a role in that process by operating more efficiently, especially in marketing, and by organizing efforts to halt insurance fraud. Reform of the legal system is also part of the answer. The major conclusion to be drawn is that regulation has probably done more harm than good in maintaining availability, affordability, and solvency in the auto insurance market. By providing temporary price relief, the regulatory system diverts the attention of public policymakers from finding realistic, effective measures to solve the insurance crisis.

Regulation has done more harm than good in maintaining availability, affordability, and solvency in the auto insurance market.

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