

Insurance Deregulation and the Public Interest

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Public Interest

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Foreword

This volume is one in a series commissioned by the AEI-Brookings Joint Center for Regulatory Studies to contribute to the continuing debate over regulatory reform. The series will address several fundamental issues in regulation, including the design of effective reforms, the impact of proposed reforms on the public, and the political and institutional forces that affect reform.

Many forms of regulation have grown dramatically in recent decades—especially in the areas of environment, health, and safety. Moreover, expenditures in those areas are likely to continue to grow faster than the rate of government spending. Yet, the economic impact of regulation receives much less scrutiny than direct, budgeted government spending. We believe that policymakers need to rectify that imbalance.

The federal government has made substantial progress in reforming economic regulation—principally by deregulating prices and reducing entry barriers in specific industries. For example, over the past two decades consumers have realized major gains from the deregulation of transportation services. Still, policymakers can achieve significant additional gains from fully deregulating other industries, such as telecommunications and electricity.

While deregulating specific industries has led to substantial economywide gains, the steady rise in social regulation—which includes not only environmental, health, and safety standards but many other government-imposed rights and benefits—has had mixed results. Entrepreneurs increasingly face an assortment of employer mandates and legal liabilities that dictate decisions about products, payrolls, and

personnel practices. Several scholars have questioned the wisdom of that expansion in social regulation. Some regulations, such as the phaseout of lead in gasoline, have been quite successful, while others, such as the requirement for safety caps on aspirin bottles, have led to increased risks. As those regulatory activities grow, so does the need to consider their implications more carefully.

We do not take the view that all regulation is bad or that all proposed reforms are good. We should judge regulations by their individual benefits and costs, which in the past have varied widely. Similarly, we should judge reform proposals on the basis of their likely benefits and costs. The important point is that, in an era when regulation appears to impose very substantial costs in the form of higher consumer prices and lower economic output, carefully weighing the likely benefits and costs of rules and reform proposals is essential for defining an appropriate scope for regulatory activity.

The debates over regulatory policy have often been highly partisan and ill-informed. We hope that this series will help illuminate many of the complex issues involved in designing and implementing regulation and regulatory reforms at all levels of government.

ROBERT W. HAHN

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1

Overview

A variety of complex state laws regulate property-liability insurance rates. The market for each of the three largest types of coverage—automobile, homeowners, and workers’ compensation insurance—generally has two components: the “voluntary market” and the “residual market.” The voluntary market consists of policies that insurers sell voluntarily. The residual market consists of policies that insurers are legally required to issue when buyers have difficulty obtaining coverage in the voluntary market.¹ All states regulate rates for the residual market, usually by requiring prior regulatory approval of rates charged. Many states require prior regulatory approval of rate changes for policies sold voluntarily. Some states exercise substantial control over insurance risk classification, that is, on allowable rate differences among buyers of the same type of coverage. A few states have excess-profit statutes that require insurers to refund profits under certain conditions and in effect constitute a form of retroactive rate regulation.

Insurance rate regulation dates back to the early twentieth century and reached full bloom following the enactment of the McCarran-Ferguson Act in 1945. During the next few years most states enacted prior approval regulation of property-liability insurance rates. Those laws generally required or strongly encouraged all insurers to charge the same rates, which rating bureaus set. The next two decades, however, saw the gradual breakdown of procedures that mandated or encouraged the use of bureau rates. Beginning in the late 1960s and early 1970s, a number of



states began to deregulate rates for some lines of business. Many states, however, continue to regulate rates for private passenger automobile, homeowners, and workers' compensation insurance. Some states also regulate rates for other property-liability lines, and regulation of health insurance rates has expanded in recent years.

Given deregulation in other industries, financial services modernization and integration, economic globalization, and the rapid development of electronic commerce, the continued regulation of rates in competitively structured insurance markets is anomalous. Signs exist, however, that a broad wave of insurance deregulation may be underway. Nearly a quarter of the states—Arizona, Arkansas, Colorado, Indiana, Kansas, Louisiana, Maine, Missouri, New Hampshire, Oklahoma, Pennsylvania, and Rhode Island—have recently deregulated the rates and the contract terms and language of property-liability forms for large commercial buyers. Other states—Maryland, New York, North Dakota, Texas, and Washington—are considering that change. A few jurisdictions have recently curtailed regulating the rates for personal lines of insurance.

This volume summarizes the persuasive case for deregulating insurance rates and policy forms. The focus is on property-liability insurance, but the main arguments apply to virtually all competitively structured insurance markets. I consider, in decreasing order of emphasis, prior approval rate regulation, regulation of risk classification, and regulation of policy forms.

I conclude that insurance markets are competitively structured and exhibit conduct and performance consistent with vigorous competition. The traditional rationale for rate regulation of public and private utilities—prevention of excess profits and welfare loss due to monopoly pricing—does not apply to insurance. Regulatory prior approval of voluntary market rate changes is therefore not needed to mitigate any insurance market failure.

Prior approval rate regulation entails potentially large direct and indirect costs. Because such regulation is not needed to correct any demonstrable market failure, those costs are unnecessary and counterproductive. Deregulation of voluntary market rates would eliminate those costs, thereby producing efficiency gains and benefiting consumers.

Restrictions on insurer risk classification likewise are not needed to mitigate market failure. Classification restrictions require lower-risk insurance buyers to subsidize higher-risk buyers and reduce incentives for higher-risk buyers to control losses. Restrictions thus exert upward pressure on losses and average premium rates. Some classification restrictions may arguably serve other social goals, but they are inefficient and ineffective in addressing problems of insurance affordability.

For lines of insurance where the residual market serves an essential function as insurer of last resort, regulators should set residual market rates at self-sustaining levels, if feasible, and should in any event set those rates high enough to avoid crowding out voluntary coverage and creating significant subsidies from the voluntary market to the residual market.

Like prior approval rate regulation and classification restrictions, regulatory requirements for filing and approval of policy forms generally are not needed to mitigate market failure, and they entail nontrivial costs, which consumers bear. Insurers should not be required to file policy forms sold to medium and large businesses. Filing should be required, at most, for policy forms sold to small business and personal lines customers, and those forms should not be subject to prior approval.

While the discussion in this volume reflects a large amount of academic research, this is not an academic treatise.² My objective is to outline the compelling case for deregulation by providing enough detail to be informative without being unduly tedious. Viewed from the perspective of economic efficiency, my exposition of the case for deregulation is conventional.³ Academic economists have



given little or no support for price regulation in competitively structured markets. Property-liability insurance markets are no exception. Perhaps unfortunately, quantitative estimates of the total efficiency gain from insurance rate and form deregulation are not available. Even if they were, however, such estimates would be subject to considerable error, given the complexity of insurance rate regulation and its effects on prices, contract terms, and behavior. The information and analysis that are available strongly suggest that deregulation would benefit most consumers.

After providing a brief history of insurance rate regulation and describing various types of rate regulatory laws, I discuss the fundamental incompatibility of insurance rate regulation with the classical view of public interest regulation. I then analyze common arguments for rate regulation and find them to be unconvincing. I discuss the main costs of rate regulation, including its counterproductive tendency to distort incentives for loss control and thus to increase losses, and the inherent inability of prior approval rate regulation and restrictions on rate classification to make coverage more affordable for the average buyer. After briefly discussing possible deregulation of policy forms, I offer my main conclusions about the public interest needs for widespread deregulation of the property-liability insurance industry.

2

A Brief History of Rate Regulation

During the nineteenth century, property-liability insurers consistently sought to set rates and agents' commissions collectively. Insurers rationalized collective pricing as a necessary measure to prevent destructive rate competition and widespread insolvency. Although rate agreements were usually short-lived, episodes of numerous insolvencies, especially those following a few large conflagrations in major cities, reinforced the notion that restrictions on competition were necessary for insurance market stability. Toward the end of the century, insurers developed the so-called compact system to promote rate uniformity across companies. The compacts met with limited success, given competitive pressure for insurers to defect. Some states enacted antcompact laws. Those laws were often criticized for allowing allegedly unfair price differences across consumers. Many antcompact laws were subsequently repealed or declared unconstitutional.

During the first half of the twentieth century, insurers developed more effective mechanisms for fixing rates under the auspices of insurance rating bureaus, precursor organizations to modern rate advisory organizations such as the Insurance Services Office and the National Council on Compensation Insurance. Regional rating bureaus set property insurance rates that most companies would charge, in principle to ensure adequate prices and therefore to reduce insolvency risk. Many states permitted or encouraged the development of rating bureaus to promote stability and



reduce allegedly unfair price differences; some states began to regulate the bureaus' activities. Regulators in a few states set rates for use by all companies.

Collective ratemaking arrangements, whether regulated or unregulated, were exempt from federal antitrust law because of the 1868 decision by the U.S. Supreme Court in the case of *Paul v. Virginia* (75 U.S. 168). The Court held that insurance was not commerce and therefore was not subject to laws affecting interstate commerce. States, rather than the federal government, had the power to regulate insurance. A number of other cases that argued that insurance constituted interstate commerce upheld that decision for approximately seventy-five years.

In 1942 the Antitrust Division of the U.S. Department of Justice began an investigation into the activities of a large rating bureau known as the South-Eastern Underwriters Association. The U.S. attorney general subsequently indicted the association for alleged violations of the Sherman Act. The charges included restraining and monopolizing commerce, fixing prices and agents' commissions, attempting to force buyers to purchase from member insurers, denying nonmember insurers access to reinsurance from member insurers, and refusing to transact with agents who represented nonmember insurers. A federal district court dismissed the case, citing *Paul v. Virginia*. The U.S. attorney general appealed to the Supreme Court. The Court did not decide on the merit of the charges, but in *United States v. South-Eastern Underwriters Association* (322 U.S. 533, 1944), it overturned *Paul v. Virginia*. The majority basically ruled that insurance is commerce, that it is interstate commerce when transacted across state lines, that Congress could therefore regulate insurance, and that the Sherman Antitrust Act applied to insurance. The decision did not prohibit state regulation, but it held that state laws contrary to federal law were invalid.

The decision produced considerable uncertainty about the allowable scope of state regulation and taxation of insurers

and the legality of industry operating procedures, especially the use of rating bureaus. Representatives of both the insurance industry and state regulation sought federal legislation to preserve the status quo. Congress swiftly enacted the McCarran-Ferguson Act in 1945. The act holds the states' continued regulation and taxation of insurance to be in the public interest. The act states that no act of Congress "shall be construed to invalidate, impair, or supersede" any state law enacted for the purpose of regulating or taxing insurance. Federal antitrust law is, however, "applicable to the business of insurance to the extent that such business is not regulated by state law" and to "any agreement to boycott, coerce, or intimidate, or act of boycott, coercion, or intimidation."

The implications of the McCarran-Ferguson Act were clear. First, states would continue to have primary authority for insurance regulation, although the federal government could enact legislation regulating insurance if state regulation were found to be deficient. Second, many of the activities of rating bureaus would not be subject to federal antitrust law provided that they were regulated by the states and did not involve boycott, coercion, or intimidation.

As a result of that legislation, most states revised their regulatory systems to provide greater oversight of rating bureau activities. The most common approach was to make the property-liability insurance rates developed by rating bureaus subject to regulatory prior approval. The laws generally either required or strongly encouraged all insurers to use bureau rates.

The Breakdown of Bureau Pricing and the Onset of Rate Suppression

Beginning in the late 1950s, many states made it easier for insurers to charge rates that differed from bureau rates. Large direct writers such as Allstate, Nationwide, and State Farm—insurers with exclusive agents as opposed to independent agents and brokers—generally obtained approval



to charge lower rates commensurate with their lower operating expenses and targeting of lower-risk buyers, thereby producing significant benefits to many consumers.

By the mid-1960s, a significant number of states ultimately eliminated prior approval regulation by replacing their prior approval laws with competitive rating laws. That trend reflected several influences, including the gradual erosion of bureau pricing and increased administrative costs associated with multiple rate filings by numerous insurers, the recognition that solvency regulation obviated rate regulation's possible role in preventing insolvencies, and the hope that price competition would ameliorate growing insurance affordability problems in some states.⁴

Rapid growth in insurance claim costs in the 1970s, however, influenced a number of other states to eschew rate deregulation and instead to increase the intensity and scope of rate regulation. The trend continued in conjunction with strong cost surges in the 1980s that culminated in the passage of Proposition 103 in California in 1988, with its mandatory provision for a 20 percent rate rollback. Several states, including Massachusetts, New Jersey, and South Carolina, were already well known for substantial constraints on automobile insurance rate increases in the face of rising claim costs and for limitations on underwriting and rate classification that caused premiums to deviate from expected costs for many buyers.

The 1980s also saw widespread regulatory suppression of workers' compensation rates in the presence of rapidly rising loss costs. Residual markets, which originally had been developed as markets of last resort for the few buyers who would be unable to find voluntary coverage, mushroomed in size and often became a means for rate suppression in automobile and workers' compensation insurance. Residual market rates effectively served as a binding cap on voluntary market prices.

Thus, the 1970s and 1980s reflected two divergent trends. Some states largely deregulated property-liability insurance rates, with the frequent exception of private work-

ers' compensation insurance in the large majority of states that do not have state monopolies for such coverage.⁵ A number of other states changed the emphasis of traditional prior approval rate regulation from the promotion of rate adequacy to ensure solvency to more restrictive and comprehensive controls aimed at limiting rate increases. Changes in the methods and administration of rate regulation accompanied the latter trend.

Before the 1970s, regulatory review of rate filings focused on the actuarial soundness of the loss and expense components of rate filings. States approved target underwriting profit margins with little or no formal recognition of investment income, in part because interest rates had been low historically and most claims were paid fairly quickly after insurers received premiums. The emphasis on insurance affordability led most states with rate regulation to consider investment income formally in the rate review process. A few states adopted rate-of-return regulation patterned after procedures used for public utilities. Rate-of-return regulation in some states was and continues to be subject to lengthy debate over most facets of the ratemaking process, including projected costs and the amount of capital assumed to back the sale of coverage in a particular line of business. A few states enacted limits on the amounts and types of expenses that could be incorporated in rate filings. Some states adopted or attempted to adopt procedures that would discourage insurers from exiting the market for a line of insurance in response to regulatory rate suppression. For example, states required an insurer to exit all lines of insurance in the state if it exited a given regulated line, permitted only gradual withdrawal, or levied exit fees to fund future residual market deficits or guaranty fund assessments.⁶

Experience in the 1990s

Large catastrophe losses from hurricanes and earthquakes in the 1990s led to expanded state intervention in the pric-

ing and underwriting of homeowners insurance, including constraints on nonrenewals and insurer withdrawals and restrictions on the use of catastrophe loss modeling to project loss costs. A trend toward deregulation or at least more benign regulation has, however, existed in other property-liability lines. Loss trends for auto insurance improved substantially beginning in the early 1990s, and in many states rate decreases have been more prevalent than rate increases. Those developments reduced public pressure for using rate regulation to lower auto insurance rates. Several states with the largest residual markets for automobile insurance adopted changes to encourage voluntary sales and to shrink the size of the residual market. Favorable cost trends also occurred in workers' compensation insurance, in part because of state reform legislation designed to cut costs. Moreover, during the early 1990s many states modified their systems of voluntary and residual market rate regulation to permit higher rates and to provide greater incentives for loss control to employers and workers' compensation insurers. Some states substantially deregulated workers' compensation insurance rates for the voluntary market. Substantial reductions in the size of residual markets for workers' compensation insurance followed those changes.

During 1998 and 1999, nearly a quarter of the states deregulated both rates and policy forms for large commercial insurance buyers, and other states considered doing so. That trend largely reflected the recognition that rate and form regulation serve no useful purpose and are instead counterproductive. Continuing debate focuses heavily on the direct and indirect costs of state regulation of prices, policy forms, and state licensing of agents and brokers. Costs and delays incurred by multistate insurers that must deal with multiple and often conflicting state rules and procedures have assumed greater importance in an environment of financial services modernization, growing electronic commerce, and global competition. Some insurers view federal regulation as offering the potential for reducing

the direct and indirect costs of state regulation through less intrusive and more uniform regulation, and that view has probably played some role in inducing states to relax regulation.

The time may be ripe for broader deregulation of insurance rates. Discussions of possible federal regulation, the slowdown in claim cost growth and the attendant alleviation of insurance affordability problems in some states and lines, the growth of electronic commerce, and the increased recognition that rate regulation cannot make insurance more affordable for most insurance buyers auger favorably for deregulation. The window of opportunity may be narrow, however. Any resurgence in the growth of claim costs could produce substantial pressure to limit rate increases through regulation. A replay of the 1970s and 1980s experience might ensue in some states.

Types of Rate Regulation

As noted earlier, insurance rate regulation influences prices in several ways. A majority of states regulate voluntary market rate changes for some lines of insurance through prior approval laws, residual market rates are regulated in all states, some states restrict rate classification, and a few states have excess profit laws.⁷ Full deregulation of rates would therefore require the deregulation of voluntary market rates and constraints on rate classification, the approval of residual market rates that do not crowd out the voluntary market, and the repeal of excess profit statutes.

The details of rate regulation are complex. A variety of different laws govern voluntary market rates, which often vary by line of business within a state. Moreover, the administration of rate regulation varies within states with the same type of law. Specific statutes range from state-made rates (in one case, automobile insurance in Massachusetts) to no rate regulation and no rate-filing requirement for some lines and states. Table 2-1 classifies states into three



TABLE 2-1
MAJOR TYPES OF RATE REGULATION IN PROPERTY-LIABILITY INSURANCE

| Type of Law | Number of States | | | |
|--|------------------------------|------------|--------------------------|-----------------------------------|
| | Private Passenger Auto | Homeowners | Workers' Compensation | General Property- Liability |
| Prior approval (state-made rates, prior approval) | 27 | 25 | 30 | 19 |
| Conditional prior approval (flex rating, prior approval if noncompetitive market) | 10 | 7 | 7 | 6 |
| No prior approval (file-and-use, use-and-file, filing only, no filing) | 14 | 19 | 8 | 25 |
| Rate and form deregulation for large commercial risks (June 1999) | — | — | 1 | 13 |

Note: Six states have monopoly state insurers for workers' compensation.

Sources: The number of states with prior approval, conditional prior approval, and no prior approval as of August 1998 is from the American Insurance Association's State Rating Law Survey. The information on large commercial risk deregulation is from Best's Review and Business Insurance.

broad groups, shows the number of states in each group, and indicates the number of states that have deregulated rates and forms for large commercial buyers. Note that such a broad classification oversimplifies variation in regulation by ignoring some variations in provisions across states. In addition, the classification does not consider variation in the administration of laws among states with roughly similar statutes.

The prior approval group includes states that require prior regulatory approval before rates can be used, states that require prior approval but deem rates to be approved if the regulator takes no action within a specified time of the rate filing, and the Massachusetts state-made rate system. The conditional prior approval category includes states that require prior approval of rates under specified conditions. It includes states that require prior approval of rate changes in a “noncompetitive” market, the interpretation of which depends largely on the insurance commissioner’s evaluation. The conditional prior approval category also includes states with so-called flex rating laws, which require prior approval only for rate changes in excess of a stipulated percentage. The third group includes all states not in the first two categories. That group comprises states with file-and-use laws, use-and-file laws, rate-filing-only laws, and no rate filing or rate approval requirements.⁸ Those laws often are known as “competitive rating” or “open rating” laws.

A few examples will help illustrate how the effects of a given rating law depend on its administration. Prior approval regulation in some states has traditionally been pro forma, with the de facto result that competition primarily governs rate changes, albeit sometimes with significant delays. In contrast, for a number of years, other states have used prior approval regulation to delay and suppress rate increases in the presence of rapidly rising claim costs. Still other states have sometimes used such regulation to establish binding rate floors that prevented some insurers from

undercutting the rates of others. Similarly, some states may administer competitive rating laws as *de facto* systems of prior approval. Some laws give regulators authority to challenge rate changes after they are implemented, and regulators may credibly threaten subsequent disapproval of rates unless insurers seek formal or informal approval beforehand. Thus, while the broad categorization of states according to type of rating law is useful for general comparisons, the type of rating law is a rough indicator of the effects of rate regulation in a particular state.

States also differ with respect to the design and administration of residual markets. If residual market rate regulation effectively caps rates that insurers can charge in the voluntary market, the residual market crowds out voluntary market supply, even if voluntary market rates are not subject to prior approval. Just as important, a number of states impose binding restrictions on underwriting and risk classification. Those restrictions materially affect the rates charged to different buyers, even if competition largely determines average year-to-year rate changes.⁹

3

Rate Regulation vs. the Public Interest View of Regulation

The classical rationale for economic regulation is that it should serve and protect the public interest by efficiently mitigating market failures. The test for efficient regulation is two-pronged. First, demonstrable market failure should exist. Second, substantial evidence should show that regulation can efficiently address the failure; the benefits of regulation should outweigh its direct and indirect costs. Efficient regulation also necessarily involves matching the appropriate regulatory tool to the specific market failure.¹⁰ Here, I discuss rate regulation through the lens of the classical economic view by addressing whether the structure of insurance markets and insurer conduct and performance are consistent with vigorous competition. The clear conclusion is that insurance market structure, conduct, and performance are competitive and do not justify government regulation of rates.

Market Structure and Ease of Entry

When economists assess whether a given industry is likely to achieve the benefits of competition, they customarily examine market structure and ease of entry. The essence of competitive behavior is a lack of coordinated action by firms. The presence of only a small number of firms with large market shares increases the possibility of either tacit or active cooperation among firms to raise prices above costs, provided that the firms are protected from new entry.

TABLE 3-1
 MARKET CONCENTRATION MEASURES FOR PRIVATE PASSENGER AUTO
 AND HOMEOWNERS INSURANCE WRITTEN PREMIUMS

| | <i>Top Four Groups (%)</i> | <i>Top Eight Groups (%)</i> | <i>Herfindahl Index</i> |
|--------------------|------------------------------------|-------------------------------------|-----------------------------|
| Automobile | | | |
| National 1997 | 43.1 | 54.9 | 719 |
| National 1993 | 43.7 | 52.5 | 722 |
| State average 1993 | 56.1 | 70.9 | 1,122 |
| Homeowners | | | |
| National 1997 | 45.7 | 57.4 | 832 |
| National 1993 | 43.8 | 52.7 | 771 |
| State average 1993 | 53.8 | 68.0 | 1,096 |

Note: The Herfindahl index is the sum of the squared percentage market shares for all insurers. National values for 1997 estimated using data reported in *Best's Aggregates and Averages*, 1998 ed. The 1993 values are reported by Klein (1995), using data from the National Association of Insurance Commissioners.

Economists generally agree that market structure and ease of entry are highly conducive to competition in auto, homeowners, workers' compensation, and most other property-liability insurance lines.¹¹

Over 500 insurer groups write private passenger automobile and homeowners insurance in the United States. Table 3-1 shows the share of premiums written by the top four and top eight insurer groups. The table also shows another commonly used measure of market concentration, the Herfindahl index, which equals the sum of the squared percentage market shares across firms. For example, a market with 100 equally sized firms would have a Herfindahl index of 100; a monopoly would have an index of 10,000. The table shows data for the nationwide market as well as average values for the fifty states and the District of Columbia. Table 3-2 presents information on market concentration by type of rating law. No obvious differences exist among prior approval states, conditional prior approval states, and states without prior approval.

TABLE 3-2
 COMPARISON OF PRIVATE PASSENGER
 AUTO INSURANCE HERFINDAHL INDEX
 FOR WRITTEN PREMIUMS BY TYPE OF RATE REGULATION

| <i>Statistic</i> | <i>Twenty-seven States with Prior Approval</i> | <i>Ten States with Conditional Prior Approval</i> | <i>Fourteen States without Prior Approval</i> |
|--------------------|--|---|---|
| Average | 1,176 | 1,004 | 1,104 |
| Median | 1,129 | 901 | 1,105 |
| Standard deviation | 365 | 330 | 250 |

Note: The 1993 data are reported by Klein (1995). The calculations are the author's.

While no firm criterion exists for assessing the point at which market concentration becomes high enough to produce significant deviations from competitive behavior, most economists would consider the levels of concentration shown in tables 3-1 and 3-2 to be low or at most moderate.¹² Concentration measures are lower for most commercial insurance lines than for private passenger auto and homeowners insurance. Not surprisingly, the state averages for the concentration measures exceed the national level, but they are still relatively low. While state concentration levels are more relevant for assessing immediate competition, national values are more relevant for assessing long-run competition, given the ease in which insurers can expand writings into additional states—absent inefficient regulatory constraints on such expansion.¹³

Most academic economists would agree that those levels of concentration would make noncompetitive pricing behavior a remote possibility, and virtually all would eschew price regulation, given the market structure. Other observers sometimes argue that concentration is high enough in some states to raise the specter of noncompetitive pricing. A few argue that the relevant market is smaller than a state, a definition that generally produces higher concentration measures. That argument is reduced to absurdity, however,

if the relevant market is defined to be progressively smaller—for example, a county, a zip code, a neighborhood, a census tract, a block, or a household. Most economists define the relevant market as the state, if not the nation.

Moreover and fundamentally, collusion is unlikely to raise prices, even in concentrated markets, if no entry barriers exist, because potential entry effectively deters non-competitive behavior. Most economists have argued that entry barriers are low for new insurers. Moreover, existing insurers generally could readily expand their writings in new states or lines of business, and moderate or increasing levels of concentration generally indicate greater market penetration by more efficient providers.¹⁴

To summarize, the evidence on market structure and ease of entry indicates that insurance rate regulation does not meet the first criterion for efficient government intervention. The evidence gives no indication of likely market failure due to structural characteristics.

Market Conduct

Modern insurance markets that are relatively free from regulatory constraints on prices and risk classification exhibit pervasive evidence of competitive conduct. Insurers vary substantially in terms of price, underwriting, and service.¹⁵ Competition creates strong incentives for insurers to forecast costs accurately and to price and underwrite so as to avoid adverse selection, that is, to avoid selling coverage to a disproportionate number of higher-risk buyers. As a result, competition leads to highly and increasingly refined systems of rate classification. Prices vary substantially across insurers in relation to rate classification systems and underwriting standards. Insurers grow and prosper when they excel at pricing and underwriting accurately by incorporating in their loss forecasts all information that can be obtained at reasonably low cost. Insurers that lag behind suffer adverse selection, poor financial results, and declining market shares.

Somewhat ironically, one underlying motive for price regulation in insurance markets is that some persons perceive competition in insurance markets as overly vigorous. Historical concern that unfettered competition would produce an excessive number of insolvencies diminished with improved solvency regulation. Resistance to competitive pricing and underwriting persists in modern times largely because competitive insurance markets are successful at classifying buyers with widely different risks of loss into reasonably homogeneous groups on the basis of expected costs. Some critics of the insurance industry object to competitive classification because it disadvantages some consumers compared with others.

Performance

Profitability. Measuring insurers' economic profits with a high degree of accuracy is problematic for several reasons, including the lack of information on the market values of many insurer assets and the market values of liabilities. Random variation in losses and errors in reported loss reserves may also materially affect accounting profits for any given year. Calculations of profitability by line and by state are even more problematic, especially when one attempts to estimate the rate of return on capital. No solid theoretical basis exists for allocating insurer capital by line and state to calculate rates of return on capital for different lines and states. The accurate allocation of many expenses and investment income by line, by state, or by both is also difficult.

Despite those problems, accounting data at the industry level provide at least a ballpark indication of average profitability over time. On the basis of generally accepted accounting principles, the average annual rate of return on net worth for the property-liability industry was 10.6 percent in the 1980s and 8.6 percent from 1990 through 1998.¹⁶ The rate of return on allocated capital for auto, homeowners, and workers' compensation insurance gen-

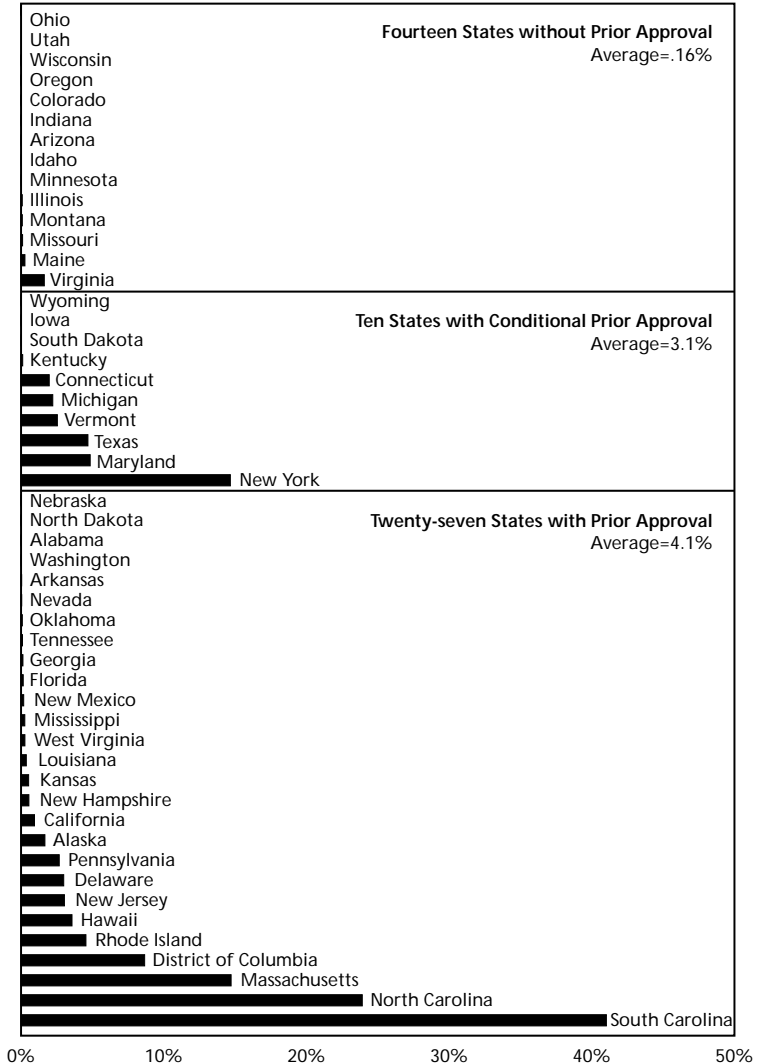
erally has been lower than for all lines combined. Consistent with competition, no clear evidence exists of large profitability compared with other industries.

Some argue that reported operating results understate insurer profitability for a variety of reasons including the failure to discount loss reserves to present value and possible deliberate overstatement of losses to hide profits.¹⁷ But no evidence exists that insurers consistently and materially overstate loss reserves or that discounting losses on financial statements would substantially increase the return on capital, since discounting loss reserves increases both reported income and capital.¹⁸

Availability. Competition in pricing and risk selection does not create insurance availability problems. Instead, competition promotes the ready availability of coverage at rates that are sufficient to cover expected costs and provide insurers with a reasonable expected profit. Figure 3-1, which shows residual market shares of total insured autos for auto liability insurance by state and type of rate regulation, vividly portrays that result. States without prior approval generally have negligible residual market shares; for example, eleven of the fourteen states have a residual market share less than .1 percent. That group includes two large urbanized states—Illinois and Ohio. In stark contrast, some states with prior approval and conditional prior approval regulation have very large residual market shares. The distinguishing feature of those states is that they have rate regulation systems that hold rates below expected costs for many buyers.¹⁹

Some observers suggest that the seemingly compelling evidence from residual market data that competition promotes availability is misleading, because many drivers are insured voluntarily by so-called nonstandard insurers. Those insurers, which often are affiliates of “standard” market insurers, specialize in offering coverage at higher rates to drivers who have higher expected costs or who are less likely to pay premiums and renew coverage or who fall into both categories. The argument is that the market penetration

FIGURE 3-1
AUTO LIABILITY INSURANCE RESIDUAL MARKET SHARES IN 1995



of those insurers indicates a market failure due to excessive competition in risk classification or more malignant behavior—overt discrimination, which is illegal regardless

of rate regulatory environment. To the contrary, a well-functioning competitive market anticipates insurer specialization according to the expected claim costs and expense characteristics of buyers.²⁰ The nonstandard market reflects insurer specialization to achieve greater refinement in cost-based classification.

Rate regulation can prevent persons insured by nonstandard insurers from being served voluntarily; that is, it can replace the voluntary nonstandard market with a larger residual market with inadequate rates. South Carolina provides a striking example. Following a quarter century of prohibitions on underwriting, restrictions on risk classification, and prior approval rate regulation, South Carolina substantially deregulated auto insurance rates and underwriting in 1999. Before deregulation, the share of the residual market was the largest in the country (see figure 3-1), and no nonstandard market existed. Over ninety insurers, many of them nonstandard market specialists, entered the state within six months of deregulation and nearly doubled the number of insurers writing business. South Carolina's residual market is rapidly shrinking.²¹

In short, the best way to ensure availability and therefore a small residual market is to deregulate rates. Of course, competition cannot make insurance affordable to all buyers, just as competition in the automobile market cannot make new automobiles affordable to all drivers.

Expense Efficiency

Some observers, pointing to large variation in the ratio of operating expenses to premiums across companies and an allegedly excessive nationwide expense ratio, argue that the insurance industry is inefficient. The argument that variation in expense ratios among insurers necessarily implies inefficiency is clearly false. The argument either fails to recognize that different expense ratios are commonly associated with different levels of service or tacitly assumes that

certain functions of insurers, such as underwriting and risk classification, are not worth their costs.²²

To elaborate, some observers often point to the low expense ratio for such niche insurers as the United Services Auto Association, a mail-order insurer that writes auto coverage only for current or retired military personnel, as *prima facie* evidence that mainstream insurers are inefficient. Those observers take no account of the role agents play in a competitive insurance market, of economies from target marketing and specialized distribution, or of the fact that the expense ratios of niche insurers would substantially increase if they were compelled to serve a much broader market. Those facile arguments also beg the question why insurers that are purported to be vastly more efficient fail to expand sales rapidly to other consumers and achieve market dominance.

In a competitive market, firms that choose inefficient operating methods do not prosper; they usually shrink. Firms have strong incentives to minimize costs, and firms that introduce cost-saving innovations can earn large profits. The argument that the insurance industry is grossly inefficient presumes an absence of competition. Some critics dispute that conclusion by buttressing their case on claims that price-fixing arrangements or consumers' difficulty in comparing prices protects inefficient insurers.

Risk Assessment and Incentives for Loss Control

When viewed from the perspective of economic efficiency, efficient insurance markets help minimize the total cost of risk in society. That cost includes the cost of losses, the cost of loss control—of measures designed to reduce the frequency and severity of losses—and the cost of risk reduction and transfer. As I noted, competitive insurance markets are characterized by strong incentives for accurate risk classification, given the cost of available information, and by highly refined systems of underwriting and classification.

Competitive risk classification in turn provides incentives for higher-risk buyers to take actions to control losses and thus qualify for lower premiums or have lower uninsured losses. Competition also provides insurers with strong incentives to minimize the sum of claim costs and settlement expenses. More broadly, competitive insurance prices provide information to policymakers and other parties about the cost of accidents and about the efficacy of institutional arrangements, such as traffic safety enforcement, crime prevention, and liability rules, that affect the probability and severity of losses.²³

4

Arguments for Rate Regulation: The Empty Box

In his 1982 treatise on economic regulation and its reform, Supreme Court Justice Stephen Breyer called the argument that regulation might be needed to prevent destructive competition in an industry “an empty box.” Regardless of whether the destructive competition rationale for collective ratemaking and subsequent prior approval rate regulation in insurance was devoid of merit during the nineteenth century and first half of the twentieth century, clearly that argument does not support prior approval regulation in modern times. The preceding discussion of insurance market structure and ease of entry also clearly indicates that rate regulation cannot be justified as an efficient response to monopolistic or oligopolistic pricing, assuming that price regulation is an efficient response to those conditions in some cases. Here, I address several other arguments for rate regulation, none of which withstands scrutiny.

Price Fixing and the Limited Antitrust Exemption

Some observers argue that the insurance industry’s limited exemption from federal antitrust law facilitates collusion among insurers to increase prices. Three persuasive counterarguments exist.²⁴ First, property-liability insurance markets are characterized by substantial heterogeneity in prices and underwriting standards, unless price regulation prevents such heterogeneity. Heterogeneity is *prima facie*

inconsistent with price fixing. Second, the structural characteristics of insurance markets are inconsistent with effective collusion to raise rates, at least without the help of rate regulation. Third, insurance rate advisory organizations in principle can help promote healthy competition and thereby benefit consumers by providing valuable, low-cost information to insurers concerning projected loss costs. The availability at low cost of loss forecasts based on aggregate industry data, when combined with an insurer's own data analysis, helps many insurers predict losses more accurately and thus reduces insurer risk and the need for capital. That availability also reduces the cost of ratemaking and entry into a particular market or line of business.

At best, the McCarran Act's antitrust exemption would favor price regulation only under the condition that uniform pricing and risk classification are somehow efficient. The story line would then be that collective pricing and risk classification are efficient and that price regulation is an efficient response to potential supracompetitive prices under collective pricing. The first premise of that story is invalid. In the unlikely event that the antitrust exemption, narrowed considerably by court decisions in recent years, was demonstrably associated with inefficient, anti-competitive behavior, the solution would be to deregulate prices and modify the exemption.

Costly Search and Expense Efficiency

Consumer difficulty in comparing prices could allow some inefficient insurers to survive. As in most other real-world markets, costly and imperfect information reduces market discipline in insurance. But that market imperfection does not justify price regulation.²⁵ If price comparisons by prospective insurance buyers are so difficult as to justify government action, the preferred mode of regulation is increased information disclosure rather than regulation of prices or insurers' expense levels.²⁶ Many states already pub-

lish price comparisons for representative buyers of auto and homeowners insurance.

In addition, inefficiency of the magnitude alleged by some observers—10 to 20 percent of premiums—could not plausibly be attributed to costly consumer search. Coverage is subject to a large degree of standardization, which facilitates consumers' price comparisons. It is not particularly difficult for buyers to obtain multiple insurance quotations through traditional means, and on-line quotation services are blossoming. Consumers concerned with affordability have strong incentives to search for low prices. Independent agents and brokers facilitate price comparisons among insurers that use those intermediaries, such as a large majority of commercial buyers and about one-third of personal lines buyers. States provide price comparison summaries, and so on.

Compulsory Coverage, Spillovers, and Fairness

Some observers argue that when the purchase of insurance is compulsory, states need to regulate insurance rates to prevent excessive profits to insurers. Other observers suggest that the selective suppression of rates through regulation could be advantageous to the extent that it encourages some parties who would otherwise engage in risky activity without adequate assets or insurance to buy insurance. For example, rate suppression could encourage some uninsured motorists to buy coverage. Another argument is that mandatory purchase requirements or the "essential" nature of insurance makes it desirable for the government to use rate regulation to ensure that coverage is affordable to all. Restrictions on classification are often justified on a variety of fairness grounds as well.

Preventing Excess Profits. Although false, a perhaps understandable notion among many people is that rate regulation is needed to prevent excessive profits by insurers when

the purchase of coverage is mandatory. The underlying intuition is that an increase in demand due to compulsion will increase insurer profits. While the textbook prediction is that an increase in demand will increase short-run profits, that result need not hold for compulsory insurance rules. The reason, at least in part, is that insurance markets are characterized by asymmetric information. Other things being equal, imperfectly enforced compulsory insurance laws may expose insurers to increased adverse selection, that is, to the risk that a disproportionate number of buyers with expected costs higher than estimated by the insurer will buy coverage when purchase is made compulsory.

Even apart from those influences, any demand-induced increase in profits following the enactment of compulsory insurance rules will be short-lived and, for the most part, is of historical interest only. In the long run, firms in a competitive market are willing to supply products and services at prices that equal their average costs, including a reasonable expected profit to compensate for the cost of capital. The textbook result is that long-run prices equal long-run minimum average costs, regardless of whether an exogenous factor shifts the long-run demand curve. Profit-seeking insurers will adjust capacity and supply following enactment of compulsory insurance laws to compete away any short-run increase in profits.

Encouraging the Purchase of Insurance. Parties with few assets at risk from a lawsuit may engage in risky activity and forgo the purchase of liability insurance. The resulting judgment-proof problem creates a spillover of costs on other parties. Judgment-proof parties may also have inadequate incentives for loss control. Compulsory insurance requires parties to bear more of the costs of their risky activities, which in principle can provide more efficient incentives for loss control. Given costly and imperfect enforcement as well as other practical constraints, however, compulsory insurance is an imperfect tool in that regard.

Some theoretical analyses suggest that subsidizing insurance rates to induce parties to buy coverage might increase total welfare by enhancing efficiency.²⁷ A simplified version of the basic story is as follows: If the government lowers liability insurance rates for high-risk parties, some of them will be induced to buy insurance. That in turn will reduce the costs of uninsured accidents borne by other parties. Although the other parties have to pay the subsidy, regulated prices might be expertly tailored to make everyone better off.

In practice, using rate regulation to lower rates below costs should encourage some parties, who otherwise would not, to insure. That in turn should reduce loss costs borne by other parties. For example, it should reduce premiums for uninsured motorists' coverage. Given imperfect information, dynamic changes in costs, and political pressure, however, prior approval rate regulation and regulation of risk classification are costly, blunt instruments for targeting subsidies. Envisioning that states will use rate regulation to tailor prices accurately enough to produce benefits that exceed rate regulation's direct and indirect costs strains credulity.²⁸

Enhancing Affordability and Fairness. Even if no spillovers associated with the uninsured existed, states could, in principle, use rate caps and other restrictions on classification to make coverage more affordable for those who are least able to pay and who also face high premiums in a competitive market. If so, those policies might serve common notions of distributional equity. But the direct and indirect costs of rate regulation and its bluntness as a tool for targeting subsidies again weigh heavily against such a rationale.

A closely related notion, rooted in paternalism or altruism, is that the government must make compulsory coverage affordable. But price regulation is not an efficient means of achieving that end, even if one accepts it, because such regulation is once again a crude method of providing

subsidies compared with direct subsidies to low-income buyers.²⁹ The broad scope and details of insurance rate regulation are clearly inconsistent with the narrow goal of helping the poor.

Analysts have advanced a variety of arguments for why restrictions on certain types of risk classification could improve other dimensions of fairness compared with market outcomes. Those arguments go beyond the classical rationale of using regulation to mitigate demonstrable market failures efficiently, and I do not attempt to summarize the main ones or the extensive literature on that issue here.³⁰ The drawbacks of classification restrictions include the facts that rates for many buyers must increase if insurers are to cover their costs and that attendant distortions in incentives generally make most restrictions a negative-sum game.

5

Counterproductive and Futile Aspects of Rate Regulation

Adverse Effects of Rate Regulation

Table 5-1 summarizes the possible effects of prior approval regulation of rate changes and regulation of risk classification. After reviewing the most important effects, I focus on several key issues.

Direct Costs of Prior Approval. Prior approval regulation involves direct costs of administration and compliance, including the costs associated with uniform data-reporting requirements for ratemaking information across insurers in a state. Consumers ultimately bear those direct costs. In its most invasive form, the rate approval process is contentious, costly, lengthy, inherently inaccurate, and periodically biased toward rate suppression with associated distortions in supply that harm consumers. Although the idea that regulation can be designed to produce only a fair return to insurers seems simple, the devil truly is in the details.³¹ Regulators must evaluate loss and expense components of rate filings and determine allowable profit. In its extreme form, the substitution of regulatory benchmarks for management judgment in forecasting claim costs and for determining “necessary” expenses and profit constitutes regulatory micromanagement or quasi socialization of the insurance business.

TABLE 5-1
EFFECTS OF RATE REGULATION

| <i>Type of Rate Regulation</i> | <i>Effects</i> |
|--|---|
| Prior approval with regulatory lag | Direct costs of administration and costs of compliance; delays in adjusting rates to trends in losses and expenses; greater variation in availability over time; greater variation in insurer profits over time; increased uncertainty for insurers; and higher prices. |
| Prior approval with binding rate floors | Inefficient nonprice competition (excessive service); slower expansion of efficient firms; higher prices; excessive loss control by policyholders; and fewer low-risk parties insure. |
| Prior approval with average rate suppression | Larger residual market; reduced service; increased uncertainty for insurers; increased insolvency risk; expropriation of insurer wealth; adverse spillovers on other states; reduced insurer investment in infrastructure; reduced entry/increased exit; reduced incentives for loss control by policyholders; and more parties insure. |
| Restrictions on classification | Direct costs of administration/enforcement and compliance costs; larger residual market; lower prices for high-risk buyers; higher prices for low-risk buyers; inefficiently low (high) incentives for loss control for high- (low-) risk policyholders; more high-risk parties insure; and fewer low-risk parties insure. |

Substitution for Beneficial Regulatory Activities. Allocating much of their budgets to rate regulation reduces the ability of regulatory insurance departments to address other areas, such as insurer solvency, where regulation is more likely to benefit the public. Moreover, once an insurance department actively involves itself in setting rates, many consumers begin to assume that rate regulation is a key regulatory function, which in turn may influence regulators to expand further their activities in that area. Again, regulators will often achieve such expansion at the expense of other functions that would be more likely to benefit the public.

Regulatory Lag. Insurers cannot generally expect prior approval regulation to affect their profits in the long run. To continue to supply coverage, insurers must expect a reasonable profit over time. But even if prior approval rate regulation allows adequate rates on average, regulatory delay associated with prior approval has a number of adverse effects. Because of the time and expense of the rate filing and approval process, insurers are less likely to increase or decrease rates in response to new information about expected costs than would be true without prior approval.³² For example, with competitive rating, insurers would decrease rates more rapidly in view of favorable loss trends because they would recognize that they could respond quickly to any subsequent increase in loss trends. In contrast, regulatory lag associated with prior approval tends to produce fewer but larger rate changes and greater swings in the availability of coverage and insurer profitability. Moreover, any uncertainty about whether regulators will approve proposed rate changes increases insurers' risk and thus raises the price that they need to charge to achieve a given expected profit.

Binding Rate Floors. Prior approval regulation in some states and lines might produce binding floors on rates. In addition to administration and compliance costs, rates

above cost levels that would occur under competition will encourage inefficient nonprice (service) competition and may discourage low-cost providers from entering the market or expanding offerings. The history of prior approval regulation in the 1950s and early 1960s suggests that result. It may still be descriptive in some states that have not experienced substantial public pressure for lower rates.

Rate Suppression. Although rate suppression through prior approval regulation cannot persist indefinitely without significantly reducing services or producing widespread insurer exit, in some states such regulation has produced lengthy periods of inadequate rates. Adverse consequences from short-run rate suppression include reduced voluntary market sales by current insurers and thus a larger residual market, reduced entry by new insurers, reduced incentives for insurers to provide valuable services and to invest in product distribution and service, and reduced incentives for policyholders to control losses. Restrictions on classification suppress rates for some consumers but raise rates for others unless prior approval regulation of rate changes suppresses average rate levels. Results include a larger residual market and reduced incentives for high-risk buyers to control losses.

Exit and Regulatory Wealth Expropriation

Rate suppression provides incentives for insurers to reduce service, restrain growth, and withdraw from a market. An immediate result will be an increase in the size of the residual market. After curtailing supply, insurers will attempt to save money by reducing services.³³ Chronic rate suppression that cannot be offset by cost savings from reduced services or other quality reductions ultimately will produce widespread exit. In the 1980s and early 1990s, significant numbers of insurers exited the auto insurance market in several states including Massachusetts, New Jersey, and

South Carolina that are known for tight rate regulation. A few large national insurers with agency distribution systems withdrew from the auto insurance market in response to rate suppression in a number of other states. Some workers' compensation insurers withdrew from states with notoriously unfavorable regulatory climates during the late 1980s and early 1990s.

Insurer Vulnerability to Expropriation. Given that regulatory rate suppression is ultimately self-defeating, why are insurers vulnerable? First, rapid increases in claim costs and competitive premium rates create substantial pressure for rate suppression. In the words of economist William J. Baumol: "The insurance industry is plagued by persistently rising costs which force its rates to rise cumulatively to a degree that inevitably makes that industry a perpetual target of suspicion."³⁴ Clearly, rate suppression in the face of high and rapidly growing costs is often politically popular in the short run before regulation's adverse effects become apparent.

Second, while exit is an inevitable response to persistent rate suppression that service reductions cannot offset, the threat of insurer exit in response to short-run rate suppression may not be credible. Most insurers make state-specific investments in anticipation of achieving at least a fair return. Insurers anticipate that they will recover the cost of those investments and a fair return from premium revenues over a period of years. That requires future premiums to exceed expected future variable costs, which include both expected losses and variable expenses.³⁵ Once insurers make those state-specific investments, they are vulnerable to wealth expropriation by rate suppression. Because exit requires insurers to forfeit the entire value of those investments, the firms will delay exit, perhaps for a number of years, even if rate suppression is material.³⁶

States can increase insurers' vulnerability to rate suppression by restricting exit with "lock-in" rules. Those rules

may force insurers to exit all lines in the state or require the firms to pay substantial assessments toward expected future residual market deficits as a condition for exit. Forcing an insurer to exit all lines requires it to forfeit the value of past investments made in other lines of business. That may allow premiums to be pushed even lower in lines subject to rate suppression without causing rapid exit.

Reduced Incentive for State-Specific Investment. Regulatory expropriation of insurer wealth has several invidious effects. First and most obvious, wealth expropriation reduces the incentive for insurers to make additional state-specific investments. While insurers may delay exit and can be forced to write new business, persistent rate suppression that is not severe enough to produce rapid exit will gradually erode the types and levels of services that insurers provide. Insurers might even gradually replace low-cost methods of production that require large upfront expenditures with higher-cost methods that require lower upfront outlays but larger expenses over time.³⁷ Similar to the effects of chronic suppression of housing rental rates through rent control—for example, a reduction in the stock and variety of rental housing and upkeep of existing units—those changes will tend to occur slowly and thus not be immediately visible.

Reduced Incentive to Invest Capital and Higher Insolvency Risk. Reduced premium rates directly lower the incentive for insurers to commit capital. Moreover, expected future margins between renewal premiums and variable costs motivate insurers to hold more capital to reduce the probability that financial distress will prevent them from realizing those margins. By reducing those margins, rate suppression further decreases the incentive for insurers to commit capital. The effects on insolvency risk could be small for multistate insurers if rate suppression is not widespread. Nonetheless, insurers could expect some increase in insolvency risk at the margin, especially for regional insurers,

with the attendant result that rate suppression in one state adversely affects other states.³⁸

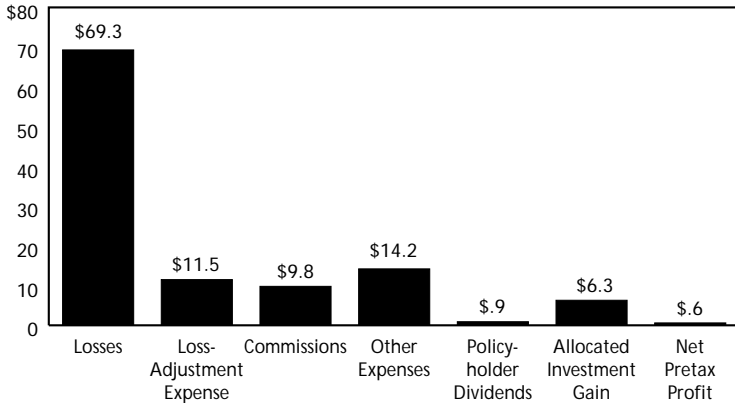
Increased Uncertainty and Higher Future Prices. We can also expect that a state's rate suppression that may expropriate the value of an insurer's investments in building its book of business will produce upward pressure on future prices because of the risk that rate suppression will recur. The possible spread of rate suppression—with its beggar thy neighbor features—to additional states could adversely affect prices and insurer investments in those states.

Expenses, Profits, and Affordability

The Importance of Claim Costs. The allegation that insurer inefficiency and excessive profits contribute materially to problems of insurance affordability offers a painless remedy to such problems. States can substantially cut premiums via price and expense regulation without producing the adverse supply effects discussed above. But even if regulation could in the long run slash insurer expenses and profit margins by some implausibly large amount, such as 25 percent, without markedly reducing service and quality and causing insurers to exit the market, the effect on premiums would be much less. Insurance would not become proportionally more affordable to high-cost buyers or in high-cost states. The simple reason is that insurance company expenses are relatively small compared with loss costs, especially when loss-adjustment expenses, such as defense of liability claims and investigation of damages, are included with losses.³⁹

Figure 5-1 depicts loss costs, sales expenses, investment income, and pretax profits per \$100 of auto and homeowners insurance premiums from 1988 through 1997. Table 5-2 presents analogous information for auto liability—including such related coverages as medical payments, personal injury protection, and uninsured motorists—and auto physical damage—collision and theft—coverage in

FIGURE 5-1
COSTS, INVESTMENT INCOME, AND PROFITS, PER \$100 OF
AUTO AND HOMEOWNERS PREMIUMS: 1988-1997



1997. The breakdown of costs indicates that potential reductions in premiums from reducing claim costs greatly exceed potential reductions from decreasing operating expenses. For example, on the basis of data for 1997, a relatively profitable year, a 25 percent reduction in sales-related expenses and profits would permit a premium reduction of about 7.5 percent. In contrast, a 25 percent reduction in losses net of investment income would permit a premium reduction of nearly 20 percent.

As indicated by those crude comparisons and the discussion of expense efficiency, the suggestion that reductions in insurer operating expenses and profits can substantially alleviate insurance affordability problems is false and highly misleading. Another implication is that any future reduction in insurer expense ratios, due, for example, to growth of Internet sales, will not be a panacea for insurance affordability problems.

Evidence on the Relation between Prior Approval and Average Rates. Consistent with the notion that rapid cost growth or high costs lead to pressure for rate regulation to

TABLE 5-2
OPERATING RESULTS FOR PRIVATE PASSENGER
AUTO INSURANCE IN 1997 (PER \$100 OF PREMIUMS)

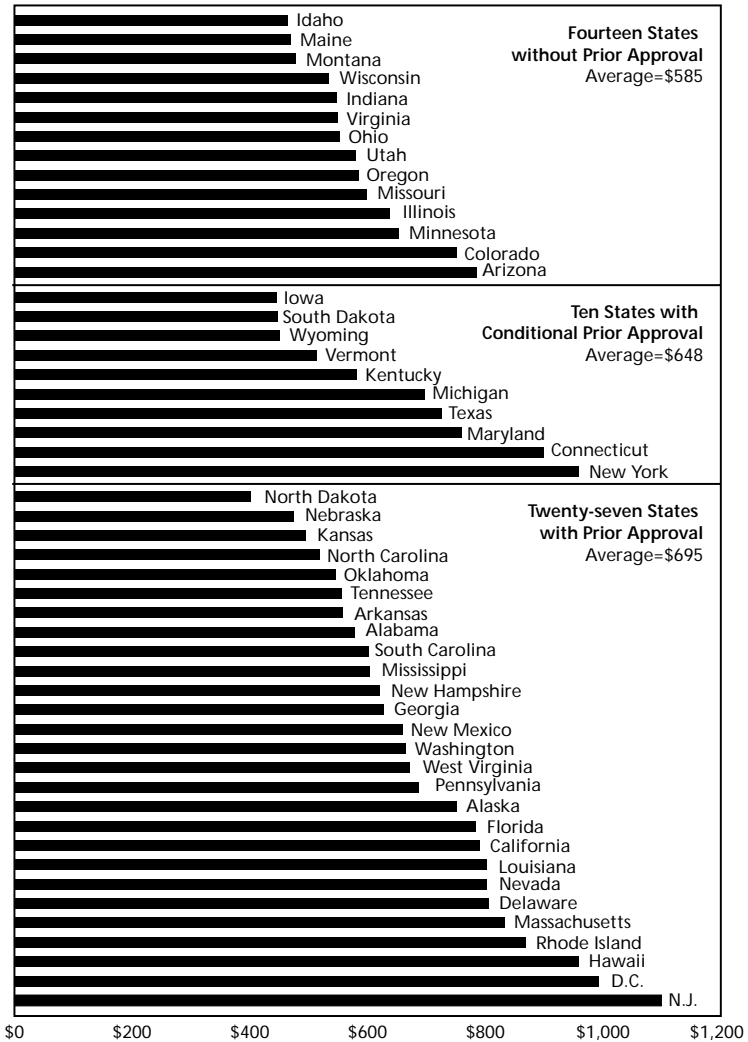
| <i>Ratio to Earned Premiums</i> | <i>Liability</i> | <i>Physical Damage</i> | <i>Total</i> |
|---|------------------|------------------------|--------------|
| 1. Incurred losses | 62.2 | 64.1 | 62.9 |
| 2. Loss-adjustment expense | 13.0 | 9.9 | 11.8 |
| 3. General expense | 4.5 | 4.4 | 4.5 |
| 4. Selling expense | 15.8 | 15.9 | 15.8 |
| 5. Taxes, licenses, and fees | 2.3 | 2.3 | 2.3 |
| 6. Dividends to policyholders | 1.7 | 1.7 | 1.7 |
| 7. Underwriting profit | .5 | 1.7 | .9 |
| 8. Allocated investment gain | 9.5 | 1.8 | 6.6 |
| 9. Allocated income tax | 2.6 | 1.0 | 2.0 |
| 10. Total losses and adjustment (1+2) | 75.2 | 74.0 | 74.7 |
| 11. Total underwriting expenses (3+4+5) | 22.6 | 22.6 | 22.6 |
| 12. Total profit on insurance transactions | 7.3 | 2.4 | 5.5 |
| 13. Allocated return on net worth | 13.1% | 10.2% | 12.4% |

Note: Direct business is as reported in the National Association of Insurance Commissioners' *1997 Profitability Report*.

reduce premiums, states with the highest insurance costs are most likely to regulate rates. Figure 5-2, which shows the average auto insurance expenditure by state during 1996, illustrates that phenomenon.⁴⁰ Note that average expenditures are highly correlated with average rates. The figure shows that states with the highest average expenditure generally have prior approval or conditional prior approval regulation. More specifically, the eleven states with the highest average expenditure and thirteen of the top fourteen states in terms of average expenditure have some form of prior approval rate regulation.

Does prior approval regulation affect average rate levels? Answering the question is not easy. A sizable academic literature compares insurance loss ratios—ratios of losses

FIGURE 5-2
AVERAGE AUTO INSURANCE EXPENDITURE BY STATE IN 1996



to premiums—to provide evidence on the issue. The use of loss ratios helps control, at least in part, for the direct effects of differences in loss costs across states on average premi-

TABLE 5-3
COMPARISON OF THREE-YEAR AVERAGE
AUTO INSURANCE LOSS RATIOS, 1995–1997

| <i>Statistic</i> | <i>Twenty-seven States with Prior Approval</i> | <i>Ten States with Conditional Prior Approval</i> | <i>Fourteen States without Prior Approval</i> |
|--------------------|--|---|---|
| Average | 66.8% | 66.7% | 65.9% |
| Median | 67.6% | 66.3% | 65.6% |
| Standard deviation | 7.2% | 4.1% | 1.6% |

Note: Data are from *NAIC Profitability Report*, 1995–1997 editions.

ums.⁴¹ The large majority of studies consider private passenger auto insurance. Consistent with rate suppression in some states, some studies provide evidence of higher loss ratios in states with prior approval rate regulation during the 1970s and early 1980s. But no uniform difference over time is evident, a result that is consistent with the inability of prior approval regulation to affect rates materially in the long run.

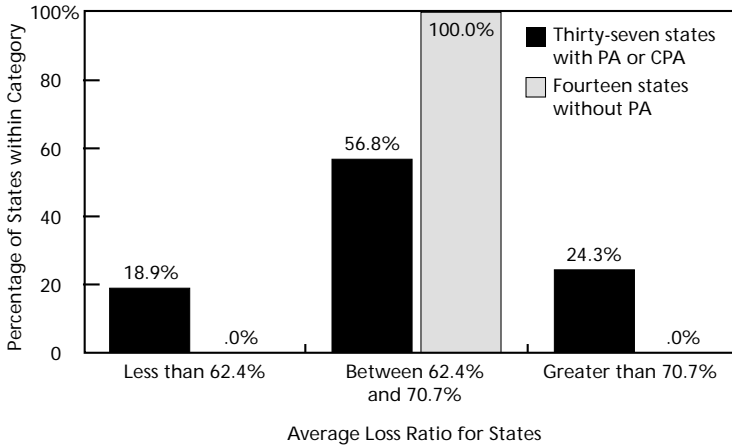
Table 5-3 compares average private passenger auto insurance loss ratios by type of rate regulation from 1995 through 1997.⁴² As we can see, the average loss ratio for states with prior approval laws was only slightly higher than in states without prior approval. But the variation in loss ratios among states with the same type of law, as measured by the standard deviation of loss ratios for each group, is much greater for states with prior approval than for states without prior approval.

Figure 5-3 further illustrates the greater cross-state variability of auto insurance loss ratios for states with any type of prior approval than for states without prior approval. The figure compares the percentage of states in each category that had average loss ratios for the period within three ranges.⁴³ All states without prior approval had average loss ratios within one standard deviation of the mean loss ratio for all states combined—between 62.4 percent and 70.7 percent. In contrast, 24 percent of states with some type of

FIGURE 5-3

CROSS-STATE VARIATION IN AVERAGE AUTO INSURANCE LOSS RATIOS BY TYPE OF RATE REGULATION, 1995-1997

(PA=PRIOR APPROVAL, CPA=CONDITIONAL PRIOR APPROVAL)



prior approval had mean loss ratios above the one standard deviation range—above 70.7 percent—and 19 percent had loss ratios less than that range—below 62.4 percent. That rough comparison, which mirrors findings in other studies, is consistent with the notion that prior approval rate regulation may temporarily reduce rates in some states but increase rates in others because of a combination of regulatory lag, binding rate floors, and rate suppression.⁴⁴

Restrictions on Classification and Insurance Affordability

Without the free lunch promised by rate rollbacks and regulatory limitations on insurer expenses, reducing rates for some buyers to enhance the affordability of coverage requires rates to increase for other buyers. Regulators can achieve reductions of rates for buyers who face the highest premiums, in conjunction with rate increases for other buyers, by lowering residual market rates or by otherwise

restricting risk classification. Examples include capping property insurance rates in catastrophe-prone areas, requiring unisex auto insurance rates, or mandating overly broad rate classes in workers' compensation insurance.

Using classification restrictions to make coverage more affordable tends toward self-defeat for another reason. Because competitive underwriting and risk classification provide desirable incentives for policyholders to take precautions to control losses, regulatory or legislative tinkering with risk classification tends to increase total claim costs by distorting such incentives and perhaps those of insurers. Higher-risk persons or businesses whose rates regulation lowers will be more likely to engage in risky activity and less likely to take precautions. In the case of automobile insurance, for example, lowering rates for high-risk drivers will encourage them to buy more expensive cars, to buy policies with larger limits and lower deductibles, and to exercise fewer precautions to prevent accidents and theft losses than would be true if competition among insurers determined rates.⁴⁵

The bottom line is that restrictions on risk classification, including using residual market rate regulation to lower rates for high-risk parties, cannot enhance the affordability of coverage for most insurance buyers. Instead, those policies require some policyholders to pay more for coverage so that other policyholders can pay less. The result is a negative-sum system of cross-subsidies that increases claim costs by distorting incentives for loss control. In addition, enforcement of regulatory restrictions on classification requires additional regulation to mitigate insurer strategies to avoid restrictions. Unfortunately, the efficiency losses from restrictions on classification are opaque to the public, in part because the losses are not easily measured. They nonetheless represent a significant drawback of such restrictions.

6

Deregulation of Policy Forms

The case for deregulating insurance rates applies to business insurance buyers, regardless of size, and to personal lines. Rate regulatory constraints for most types of property-liability insurance are less likely to bind for sales to medium and large business buyers because underwriters are usually permitted to adjust the rate on the basis of evaluating the buyer's risk by using scheduling plans, judgment-based experience rating, and other individual risk-rating programs. Even so, prior approval rate regulation for those markets sometimes constrains voluntary contracting. Moreover, such regulation entails administrative and compliance costs and serves no useful purpose.

What about policy forms? Apart from states that have recently deregulated rates and forms for large commercial risks, policy forms generally remain subject to regulatory approval in most states.⁴⁶ The requirement for insurers to file forms and endorsements for approval has become increasingly burdensome over time, especially for policyholders with locations in multiple states. The administrative costs and delays of state-by-state form regulation are archaic and dysfunctional in the modern environment characterized by rapid product innovation and increased insurer competition with other financial institutions and alternative risk transfer products.

Form regulation encourages policy standardization, which in turn facilitates buyers' comparison shopping. Some standardization is also necessary for pooled loss data across insurers to convey meaningful information for fore-

casting future costs. Nonetheless, insurers can achieve valuable standardization of products through private means without prior approval by regulators. Moreover, insurer competition, coupled with contract and tort law remedies and unfair trade practice legislation, provides substantial protection to unsophisticated buyers.

Like prior approval rate regulation and classification restrictions, regulatory requirements for filing and approval of policy forms generally are not necessary to mitigate market failure, and they entail nontrivial costs, which consumers bear. Insurers should not be required to file policy forms sold to medium and large businesses. Filing should be required, at most, for policy forms sold to small business and personal lines customers, and those forms should not be subject to prior approval. As an alternative to filing in such cases, regulators might require insurers to include provisions that are compatible with compulsory insurance requirements, or a system of partial deregulation could specify certain required and prohibited provisions.

7

Conclusions

Prior approval regulation of property-liability insurance rates entails direct and indirect costs and serves no useful purpose in modern, competitively structured insurance markets. The insurance-buying public would benefit from deregulation of rates.

Restrictions on insurer risk classification, which require lower-risk insurance buyers to subsidize higher-risk buyers, are also counterproductive and should be avoided. Such restrictions reduce incentives for higher-risk buyers to control losses and thus exert upward pressure on losses and average premium rates.

In addition, regulators should approve rates for state-mandated residual markets that are high enough to avoid crowding out the voluntary market and creating significant subsidies from the voluntary market to the residual market.

Continued deregulation of policy forms for coverage sold to medium and large businesses is also desirable. If insurers must file policy forms for small businesses and personal insurance with regulators, the use of such forms should not require prior regulatory approval.

Notes

1. In the case of auto insurance, for example, most states use an assigned risk plan as the residual market. Drivers who have difficulty finding voluntary coverage can apply to the assigned risk plan. They are then assigned to insurers that must issue coverage under the terms of the plan. Assignments are made in proportion to each insurer's voluntary market sales.

2. While I cite many studies in the notes, I make no attempt to be comprehensive.

3. For earlier work that makes many of the same points, see Joskow (1973), Hanson, Dineen, and Johnson (1974), Kramer (1991), and Klein (1995). See also Morrow (1992), Cummins and Weiss (1992), Feldhaus and Klein (1998), and Special Committee on Regulatory Reengineering (1998).

4. See, for example, Hanson, Dineen, and Johnson (1974).

5. Six states have monopoly state insurers ("funds") for workers' compensation, although one of the states is moving toward privatization. About twenty states have state funds that sell some coverage; in many cases they serve as the residual market.

6. See Epstein (1999) for a detailed discussion of so-called lock-in rules that discourage insurer withdrawals from a given state, a subject to which I refer later.

7. Most states also require uniform reporting of ratemaking information in rate filings by insurers, but the requirements differ across states.

8. File-and-use laws require insurers to file rates on or before their effective date, and the insurers can use the rates without prior approval. Use-and-file laws require insurers to file rates within a specified period after they become effective. See American Insurance Association (1999) for a comprehensive description of rate and form regulation across states.

9. Indeed, classification restrictions can have a much greater effect on rates in the long run than does prior approval regulation of rate changes, a point I later address. For early emphasis of

the point, see Nadel (1982). Note also that I use the term *classification restrictions* to refer to restrictions that drive a wedge between premiums and expected costs. The historical standard in state insurance codes that rates be “adequate, but not excessive, or unfairly discriminatory” is fully consistent with cost-based classification.

10. See Breyer (1982) for a detailed discussion.

11. See, for example, Joskow (1973), Cummins and Weiss (1992), and Klein (1995).

12. For example, for purposes of merger analysis for national markets and broadly defined industries, the Department of Justice has traditionally classified an industry as having low concentration if the Herfindahl index is less than 1,000 and as moderately concentrated if the index falls between 1,000 and 1,800. See Klein (1995) for further discussion of concentration in the automobile and homeowners insurance markets. Grace and Barth (1993) and Feldhaus and Klein (1998) summarize evidence of low concentration for commercial lines.

13. The composition of the leading insurers also changes over time, as would be expected in a dynamic, competitive market. In private passenger auto insurance, for example, three of the largest ten insurers in terms of countrywide premiums in 1987 were no longer in the top ten as of 1997. One insurer, the Progressive Corporation, increased its ranking from thirteenth to fifth. For workers' compensation, the seventh largest insurer in 1997 ranked thirty-first in 1987, the eighth largest insurer in 1997 ranked twenty-first in 1987, and the tenth largest insurer in 1997 did not rank in the top fifty in 1987 (Best 1998).

14. A large academic literature exists on the issue of whether increasing concentration reflects the growth of efficient firms as opposed to less competition. Some evidence exists of higher profitability in industries with higher concentration, and a few studies have argued that such is the case in insurance as well. In addition to the debate over whether a positive relationship between profits and concentration reflects market power, as opposed to efficiency, a large literature deals with the methodological problems of conducting such comparisons.

15. Long and Mehr (1981) provide an interesting case study of variation in insurer behavior under competitive rating in Illinois. See also Eisenach (1985).

16. See Insurance Services Office (1999).

17. The 1989 report by the Consumer Federation of America et al. (1989) is representative of that and other criticisms discussed here.

18. For accidents in 1988, for example, insurers reported \$33.8 billion of incurred losses for auto liability insurance in their 1988 statements. As of year-end 1997, insurers had paid \$32.5 billion and showed a remaining reserve for unpaid claims of about \$150 million (Best 1998).

19. See Ippolito (1979), Grabowski, Viscusi, and Evans (1989), Harrington and Doerpinghaus (1993), and Danzon and Harrington (1998) for further discussion and evidence of the effects of rate regulation on residual market size.

20. See Harrington and Niehaus (1998b) for further discussion of and analysis of the size of the nonstandard market.

21. The number of entrants includes affiliates of insurers that were already in the market. Before the 1999 reforms, which took effect in March, the number of auto insurers had declined from 138 in 1990 to a low of 87 in 1996. The number of auto insurers increased from 96 in 1998 to 188 as of September 1999 (figures obtained from the South Carolina Department of Insurance).

22. That view sometimes has led to proposals such as “pay at the pump,” where auto liability insurance somehow would be provided automatically and financed through gasoline taxes.

23. Some theoretical work raises the question whether some competitive risk classification might be socially excessive in that the benefits from classification do not outweigh the direct costs. But that theoretical work does not plausibly call into question the efficiency of most classification practices, which rely heavily on low-cost information.

24. See MacAvoy (1977), Danzon (1983), Eisenach (1985), Joskow and McLaughlin (1991), and Macey and Miller (1993) for additional discussions.

25. See, for example, Plummer (1985).

26. For general discussion of that issue, see Breyer (1982, 161–64).

27. See Keeton and Kwerel (1984) for a theoretical model of efficient subsidies in auto liability insurance. See also Smith and Wright (1992) and Jaffee and Russell (1995). Harrington (1994) critiques economic rationales for compulsory auto insurance.

28. See Harrington and Doerpinghaus (1993) and Blackmon and Zeckhauser (1991) for discussions. Jaffee and Russell (1995) are more sanguine about the use of rate regulation in that regard.

29. See Harrington and Niehaus (1998a) for further discussion.

30. See especially Abraham (1985) and, in the context of restrictions on auto insurance classification, Harrington and Doerpinghaus (1993).

31. In principle, price regulation cannot deprive insurers of a fair rate of return on capital without violating constitutional protections (*Federal Power Commission v. Hope Natural Gas*, 320 U.S. 591, 1944). In practice, the fair rate of return, the sufficiency of rates to produce that return, and related issues are subject to considerable dispute. See, for example, Mintel (1983).

32. See MacAvoy (1977) for early evidence.

33. Comparisons of operating expenses for insurers that operate in a single state have provided some evidence that prior approval regulation is associated with lower operating expenses—and presumably fewer services. See Pauly, Kleindorfer, and Kunreuther (1986). For related discussion and analysis, see Braeutigam and Pauly (1986).

Several factors limit the magnitude of cost-saving reductions in service in response to rate suppression. First, reductions in quality may adversely affect an insurer's reputation in other markets. For example, reductions in capital and increases in insolvency risk would affect all an insurer's customers. Second, while insurers may be able to cut costs or increase investment income by imposing stricter standards for claims payment, those actions expose an insurer to litigation. They might also lead to regulatory action under unfair claims practice legislation. Third, while cost-reducing changes in levels and types of services in response to rate suppression might initially reduce insurer losses and pressure to exit, future rates could eventually be adjusted downward to reflect the savings in costs. For those reasons, service and quality reductions will not likely eliminate insurer losses from significant rate suppression.

34. See Baumol (1991, 154). He later notes (p. 163): "Political intervention has characteristically taken the form of attempts to abolish the cost disease by fiat—in effect, to declare cost increases illegal." See also Cummins and Tennyson (1992).

35. For example, insurers generally expect to recover a portion of underwriting costs for new business over the duration of the relationship with policyholders, as opposed to full recovery in the initial premium. Loss ratios for some types of business also decline over time as insurers obtain valuable private information

about the claims history of their clients or new insurers learn the risk characteristics of the market. In both cases insurers expect to recover early losses in future years; that is, renewal premiums are expected to exceed variable costs. Moreover, insurers often make substantial investments in distribution networks, claims facilities, human capital, and reputation that are not tied to particular policies. Some portion of those investments is also state-specific. Again, insurers expect to recover much of the cost of those investments, including a normal return, in higher prices over a period of years. Absent rate suppression, the value arising from those investments would be marketable to other insurers. See Harrington (1992) and Epstein (1999) for additional discussions of insurer vulnerability to regulatory expropriation of the value of state-specific investments.

36. Exit from a state also requires some combination of termination and relocation of employees and agents. Increased hiring costs and turnover of agents and employees in other states may result. It will also become more costly for insurers to provide company-specific training if employees are concerned that their jobs will be in jeopardy if rate suppression spreads to their home state.

37. Gron (1993) and Tennyson and Suponic (1995) provide evidence suggesting that the auto insurance market shares of direct writers, which generally have lower expense ratios but higher upfront expenditures, are lower in states with stringent rate regulation.

38. Kramer (1991) emphasizes the potential adverse effects of rate suppression on solvency.

39. Parties arguing that insurer expenses are excessive and ignoring that a large portion of loss-adjustment costs provide tangible benefits to policyholders often lump loss-adjustment costs with underwriting expenses. But much of the expense in settling liability claims involves defense costs that the policyholder would incur in the absence of insurance coverage.

40. A similar pattern arises for expenditures on auto liability insurance alone.

41. See, for example, Ippolito (1979), Harrington (1987), and Grabowski, Viscusi, and Evans (1989), all of whom use multiple regression to control for one or more factors apart from rate regulation that could cause differences in loss ratios across states. Harrington (1984) surveys earlier work.

42. Note that any comparison of that type requires caution, given the possibility that factors besides type of rating law, including accounting anomalies in some states and random variation in loss ratios, could affect the results.

43. I calculated the ranges by using the all-state mean (66.45 percent) and the standard deviation (4.15 percent) of the three-year average loss ratios.

44. I also compared the standard deviation of the ratio of a state's auto insurance loss ratio with the national average from 1995 through 1997 by type of rating law. That standard deviation provides a crude measure—given only three years of data and the small numbers of states in the groups—of variation of underwriting results over time in a state. Although the average standard deviation was lower for states without prior approval, it was higher in states with conditional prior approval than in states with prior approval. Thus, no clear relationship existed between the average standard deviation and the type of rating law. On the other hand, nine of the ten states with the largest standard deviations had some form of prior approval, a factor that provides some evidence that prior approval increased the variability of underwriting results during that period. The finding could in part reflect the tendency of prior approval rate regulation to produce less frequent but larger rate changes than competitive rating.

45. See Rottenberg (1989) and Harrington and Doeringhaus (1993) for further discussions in the case of auto insurance. Danzon and Harrington (1998) discuss the incentive effects of price regulation in workers' compensation insurance and provide evidence that suppression of workers' compensation rates in the 1980s increased the growth of insured loss.

46. Another exception—and no doubt arcane from the lay reader's perspective—is for policies that buyers can obtain from insurers that are not fully licensed to conduct business in the state; they are known as “nonadmitted” insurers. In addition, many states that generally require prior approval of rates and forms permit very large commercial buyers to negotiate policies and rates with insurers.

References

- Abraham, Kenneth S. 1985. "Efficiency and Fairness in Insurance Risk Classification." *Virginia Law Review* 71: 403–51.
- American Insurance Association. 1999. *1999 State Rate and Form Law Guide*. Washington, D.C.: American Insurance Association.
- Baumol, William J. 1991. "Technological Imperatives, Productivity, and Insurance Costs." *Geneva Papers on Risk and Insurance* 16: 154–65.
- Best, A. M. 1998. *Best's Aggregates and Averages: Property-Casualty Edition*. Oldwick, N.J.: A. M. Best Company.
- Blackmon, B. Glenn, Jr., and Richard J. Zeckhauser. 1991. "Mispriced Equity: Regulated Rates for Auto Insurance in Massachusetts." *American Economic Review* 81: 65–69.
- Braeutigam, Ronald R., and Mark V. Pauly. 1986. "Cost Function Estimation and Quality Bias: The Regulated Automobile Insurance Industry." *Rand Journal of Economics* 17: 606–17.
- Breyer, Stephen G. 1982. *Regulation and Its Reform*. Cambridge: Harvard University Press.
- Consumer Federation of America, Consumers Union, National Insurance Consumer Organization, and Public Interest. 1989. *Reducing Auto Insurance Rates: A Comprehensive Program*. Washington, D.C.: Consumer Federation of America, Consumers Union, National Insurance Consumer Organization, and Public Interest.
- Cummins, J. David, and Sharon Tennyson. 1992. "Controlling Automobile Insurance Costs." *Journal of Economic Perspectives* 6: 95–115.
- Cummins, J. David, and Mary Weiss. 1992. "Regulation and the Automobile Insurance Crisis." *Regulation* 15 (Spring): 48–59.

- Danzon, Patricia M. 1983. "Rating Bureaus in U.S. Property-Liability Insurance Markets: Anti- or Pro-Competitive?" *Geneva Papers on Risk and Insurance* 8: 371-402.
- Danzon, Patricia M., and Scott E. Harrington. 1998. *Rate Regulation of Workers' Compensation Insurance: How Price Controls Increase Costs*. Washington, D.C.: AEI Press.
- Eisenach, Jeffrey. 1985. *The Role of Collective Pricing in Auto Insurance*. Washington, D.C.: Federal Trade Commission, Bureau of Economics.
- Epstein, Richard A. 1999. "Exit Rights and Insurance Regulation: From Federalism to Takings." *George Mason University Law Review* 7: 293-311.
- Feldhaus, William R., and Robert W. Klein. 1998. "The Regulation of Commercial Insurance: Evaluation and Recommendations." Center for Risk Management and Insurance Research, Georgia State University.
- Grabowski, Henry, W. Kip Viscusi, and William N. Evans. 1989. "Price and Availability Tradeoffs of Automobile Insurance Regulation." *Journal of Risk and Insurance* 56: 275-99.
- Grace, Martin F., and Michael M. Barth. 1993. "The Regulation and Structure of Nonlife Insurance in the United States." Working paper. Financial Sector Development Division, World Bank.
- Gron, Anne. 1993. "Regulation and the Prevalence of Direct Writers in Property-Casualty Insurance." Working paper. University of Chicago Graduate School of Business.
- Hanson, John, Robert Dineen, and Michael Johnson. 1974. "Monitoring Competition: A Means of Regulating the Property and Liability Insurance Business." *Supplement to the NAIC Proceedings*.
- Harrington, Scott E. 1984. "The Impact of Rate Regulation on Prices and Underwriting Results in the Property-Liability Insurance Industry: A Survey." *Journal of Risk and Insurance* 51: 577-623.
- . 1987. "A Note on the Impact of Auto Insurance Rate Regulation." *Review of Economics and Statistics* 69: 166-70.
- . 1992. "Presidential Address: Rate Suppression." *Journal of Risk and Insurance* 59: 185-202.

- . 1994. "Taxing Low Income Households in Pursuit of the Public Interest: The Case of Compulsory Automobile Insurance." In *Insurance, Risk Management, and Public Policy*, edited by Sandra Gustavson and Scott E. Harrington. Boston: Kluwer Academic.
- Harrington, Scott E., and Helen I. Doerpinghaus. 1993. "The Economics and Politics of Automobile Insurance Rate Classification." *Journal of Risk and Insurance* 60: 59–84.
- Harrington, Scott E., and Greg Niehaus. 1998a. "Race and Availability/Affordability Problems in Urban Automobile Insurance Markets." In *Alternative Approaches to Insurance Regulation*, edited by Robert Klein. Kansas City, Mo.: National Association of Insurance Commissioners.
- . 1998b. "Race, Redlining, and Automobile Insurance Prices." *Journal of Business* 71: 439–69.
- Insurance Services Office. 1999. *1998 Insurer Financial Results*. New York: Insurance Services Office.
- Ippolito, Richard A. 1979. "The Effects of Price Regulation in the Automobile Insurance Industry." *Journal of Law and Economics* 22: 55–89.
- Jaffee, Dwight, and Thomas Russell. 1995. "The Causes and Consequences of Rate Regulation in the Auto Insurance Industry." Paper presented at National Bureau of Economic Research, Property-Casualty Insurance Group Meeting, February 10–11.
- Joskow, Paul L. 1973. "Cartels, Competition, and Regulation in the Property-Liability Insurance Industry." *Bell Journal of Economics and Management Science* 4: 375–427.
- Joskow, Paul L., and Linda McLaughlin. 1991. "McCarran-Ferguson Act Reform: More Competition or More Regulation?" *Journal of Risk and Uncertainty* 4: 373–401.
- Keeton, William R., and Evan R. Kwerel. 1984. "Externalities in Automobile Insurance and the Uninsured Driver Problem." *Journal of Law and Economics* 17: 149–81.
- Klein, Robert. 1995. Market Structure and Performance in Personal Auto and Homeowners Insurance. *NAIC Research Quarterly* 1: 13–29.

- Kramer, Orin S. 1991. *Rate Suppression and Its Consequences: The Private Passenger Auto and Workers Compensation Experience*. New York: Insurance Information Institute.
- Long, John, and Robert I. Mehr. 1981. *The Illinois System of Insurance Pricing—Practices and Attitudes of Selected Insurers*. Bloomington, Ind.: Insurance Research Associates.
- MacAvoy, Paul W., ed. 1977. *Federal-State Regulation of the Pricing and Marketing of Insurance*. Washington, D.C.: American Enterprise Institute.
- Macey, Jonathan R., and Geoffrey P. Miller. 1993. *Costly Policies: State Regulation and Antitrust Regulation in Insurance Markets*. Washington, D.C.: AEI Press.
- Mintel, Judith. 1983. *Insurance Rate Litigation*. Boston: Kluwer-Nijhoff.
- Morrow, J. Glen. 1992. "Regulatory Environments: Do They Matter?" *Journal of Insurance Regulation* 11: 19–52.
- Nadel, M. 1982. "Auto Insurance: The Irrelevance of Regulation." *Regulation* 6: 37–42.
- Pauly, Mark V., Paul Kleindorfer, and Howard Kunreuther. 1986. "Regulation and Quality Competition in the U.S. Insurance Industry." In *The Economics of Insurance Regulation*, edited by Jorg Finsinger and Mark V. Pauly. New York: Macmillan.
- Plummer, M. 1985. *The Availability and Utility of Consumer Information on Auto Insurance*. Washington, D.C.: Federal Trade Commission.
- Rottenberg, Simon. 1989. *The Cost of Regulated Pricing: A Critical Analysis of Auto Insurance Premium Rate-Setting in Massachusetts*. Boston: Pioneer Institute for Public Policy Research.
- Smith, Eric, and Randall Wright. 1992. "Why Is Automobile Insurance in Philadelphia So Damn Expensive?" *American Economic Review* 82: 756–72.
- Special Committee on Regulatory Reengineering. 1998. *A White Paper on the Streamlining of Commercial Lines Insurance Regulation*. Report to the National Association of Insur-

- ance Commissioners. Kansas City, Mo.: National Association of Insurance Commissioners.
- Tennyson, Sharon, and S. J. Suponic. 1995. "Rate Regulation and the Industrial Organization of Automobile Insurance." Paper presented at National Bureau of Economic Research, Property-Casualty Insurance Group Meeting, February 10–11.

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