What sorts of regulation are best handled on the federal level?

Federalism and Regulation

BY ROBERT W. HAHN

AEI-Brookings Joint Center

ANNE LAYNE-FARRAR

NERA Economic Consulting

AND PETER PASSELL

Milken Institute

CONOMISTS GENERALLY AGREE ABOUT the role of regulation in modern market economies: If there is no significant "market failure," then government should not intervene. If the failure is substantial, and there is good reason to believe that regulation would improve outcomes, government should intervene.

By contrast, the issue of which level of government in a federal system should do the regulating (if regulation is indeed appropriate) often divides free market economists who otherwise have little difficulty finding common ground. On the one hand, the efficiency of applying one set of rules to national markets is embodied in the Commerce Clause of the U.S. Constitution. On the other, decentralization within a federal system is prized, both for its capacity to reflect diverse values and for the opportunities it creates to use states and localities as laboratories for innovation in regulation.

On balance, we do not believe there is a simple way to decide, from an economic efficiency standpoint, what jurisdiction is best suited to regulating. In some cases, the specific history of regulation in an industry and the institutions created to do the regulating matter a lot. The most that theory can offer here is a disciplined way of thinking about the issue.

WHY REGULATE AT ALL?

To justify regulation as a means of increasing economic efficiency, there must be evidence that markets are distorting resource allocation. However, evidence of that distortion does

Robert W. Hahn is the executive director of the AEI-Brookings Joint Center for Regulatory Studies and a resident scholar at the American Enterprise Institute. Anne Layne-Farrar is a senior consultant with NERA Economic Consulting. Peter Passell is a senior fellow at the Milken Institute in Santa Monica, Calif.

not prove that the intervention will increase welfare. As public choice economics suggests, regulation can do more harm than good for reasons ranging from the high cost of obtaining information to interest-group capture. Thus, making the case for regulation is a two-stage process: Is there good evidence that the unfettered market has failed, and if so, is regulation likely to improve matters?

The significance of this second hurdle is all too apparent in light of the problematic experiences with regulation even where it is easy to demonstrate market failure — cases ranging from efforts to internalize the costs of air pollution to the assessment of the safety and efficacy of prescription drugs. As discussed below, the imperfect nature of regulation is also relevant in the context of federalism: In some instances, the decisive factor favoring regulation at one level of government rather than another is the quality of the regulatory institutions.

REASONS TO CENTRALIZE REGULATION

If the potential welfare gains from intervention in private transactions do outweigh the losses, one is still left to choose the appropriate level of government to intervene. The case for centralizing regulation in a federal system is based on a variety of arguments.

Externalities The actions of regulators in one locality will often affect producers and consumers in another. And, other matters equal, regulators in one jurisdiction will have incentives to give greater weight to the interests of their constituents than others affected. The classic examples are siting disputes. In some cases, like the creation of national storage facilities for high-level radioactive waste from nuclear power plants, the potential consequences for those directly affected have the potential to be very serious. In most, the tensions have the same source, but the stakes are not as high.

Commercial airports, for example, may generate substantial net benefits for a large region. However, the minority of people who live closest to the site, and are thus most affected by the noise and congestion, may have disproportionate influence over decisions. For example, local activists have been able to block the conversion of the El Toro military air base in Orange County, Calif. — one of the few remaining sites for creating a commercial airport in a region much in need of airport capacity.

Conversely, local regulators may choose to ignore the costs generated in their jurisdiction that damage another. Thus, sulfur emissions from smokestacks in one state end up as acid rain in states downwind. Sewage, farm runoffs, and other contaminants that leak into watersheds may damage water quality hundreds of miles away.

As Ronald Coase pointed out, such externalities need not lead to inefficient resource allocation if it is practical for the parties with conflicting interests to make side deals. For example, those adversely affected might pay polluters to abate emissions, or polluters might compensate neighbors for losses that are capitalized in the value of their land. But the transaction costs typically are very high, or the resulting changes in the distribution of wealth simply may be deemed socially inequitable.

Some pollution externalities — for example, chemicals that damage the atmosphere's protective ozone layer — affect the whole planet. But the principles for minimizing efficiency losses are the same: Either one must create institutions to enforce trans-national regulation or else reduce the transaction costs for Coase-style side deals. Hence the logic of emissions trading systems, in which the initial distribution of wealth is skewed in favor of the nations least willing to sacrifice. China is reluctant to invest in power sources that emit less carbon dioxide, but might be induced to switch to carbon-efficient fuels if it could sell the emissions rights to other countries.

Economies of scale Uniform regulation can remove a barrier to the exploitation of economies of scale in design, manufacturing, and inventory. For example, it is cheaper for an automaker to meet one bumper crash standard for the whole country than to sell cars with bumpers tailored to individual state rules.

The idea has not been lost on suppliers of products, services, and inputs prepared to sacrifice scale economies in order to achieve market power. As a result, local variations in building codes both raise production costs and make it more difficult for outsiders to obtain the know-how to challenge locally dominant builders (and their unions).

The scale economies case for centralized regulation needs to be qualified. For one thing, the straightforward efficiency gains from greater production scale may be outweighed by advantages of specialization — one size does not necessarily fit all. A carbon monoxide emissions standard that meets a cost-benefit test in protecting health in downtown Denver may be seriously wasteful in Montana.

For another, model codes that are privately negotiated and then blessed by individual localities may be effective. Thus, adoption of the Uniform Commercial Code allows individual states to obtain the benefits of central regulation without accepting the formal loss of sovereignty.

Note, too, that while centralized regulation may be preferable to balkanized regulation, the good may prove the enemy of the best when there is no strong justification for regulation at all. If, for example, one large jurisdiction (like California or New York) threatens to go it alone on regulation, it may well pay national producers to support otherwise inefficient federal regulation. Federal water conservation standards for toilets solved the balkanization problem for manufacturers worried about local ordinances, but probably cannot be justified in costbenefit terms.

Race to the bottom Regulation typically produces losers as well as winners. If the potential losers are mobile, they can change jurisdictions in a decentralized system and either avoid the consequences of regulation or deter its imposition in the first place. For example, many large corporations are chartered in Delaware and cruise ships carry flags of convenience to avoid national labor laws. Consider worker safety, where the cost to individuals of obtaining relevant information by individuals may lead to market failure.

While most states regulate workplace safety, competition among states to increase tax bases, create jobs, and satisfy special interests may lead the states to reduce worker protection below the efficient level. Thus, the creation of the Occupational Safety and Health Administration within the U.S. Department of Labor and the promulgation of minimum workplace safety standards were rationalized as a way to stop a welfare-reducing "race to the bottom" by the states. And the federalization of regulation did work in the sense that it reduced injury rates in some categories in states with lax rules of their own.

However, it is hard to say, before the fact, whether federal regulation prevents a competitive race to the bottom or inhibits a competitive race to the top. Many economic historians, for example, argue that decentralization offered an escape valve to business in the 20th century during periods of rising regulation of state labor markets. That, in turn, served the economy's long-term interest in economic growth. By the same token, interstate competition to attract business today has undoubtedly put pressure on states to prevent abuses of tort law and to invest more in public education. And it is also leading communities to invest in amenities ranging from parks to cultural centers in order to attract highly skilled workers.

Expertise The difficulty for even best-effort regulation to mimic efficient market outcomes is always a daunting problem. And it typically is exacerbated in cases in which regulation is decentralized and regulatory resources are spread thin.

Antitrust offers a good example. While the Federal Trade Commission and the Department of Justice have a combined budget for specialized antitrust staff that exceeds \$200 million, competition policy is an afterthought for state attorneys general. California, the state with the largest financial commitment to antitrust enforcement, spends less than \$6 million annually on antitrust — less than one percent of the California attorney general's budget.

The best case for giving the states any role in antitrust is to use their potential to serve as watchdogs — to identify restraints on trade that escape Washington's radar screen. But that benign function can be more than offset by the attorneys general inclination to free-ride on federal cases. Thus, in the Microsoft civil suit, the Justice Department's obligation to include the states in decision-making blurred prosecutorial focus and inhibited efforts to reach a negotiated settlement.

It is also worth noting the increasing difficulty of amassing sufficient expertise with decentralized regulation, because both markets and products are becoming more complex. In the Microsoft case, for example, the merits of arguments turned on arcane issues such as the practicality of removing some functions from operating system software without degrading other capacities.

The arguments that apply to regulatory agencies apply equally well to the courts. Appeals of state regulation tend to be at the state level, where courts have less expertise and judges are apt to be more influenced by interest-group pressure.

More generally, regulation is increasingly challenged by the

state attorneys general were extremely reluctant to settle in part because their business constituencies were dominated by Microsoft's rivals. It is no coincidence that California, with its Silicon Valley constituency, and Massachusetts, home to Sun Microsystems research facilities, opposed compromise — or that the California legislature appropriated funds to appeal the court's last ruling.

REASONS TO DECENTRALIZE REGULATION

While centralization carries considerable appeal, there are two classic justifications for decentralization: diversities of values and opportunity for experimentation. Let us consider each of those.

Diversity of values There are strong objective reasons for designing economic regulation to imitate competitive market outcomes and bring resource allocation closer to Pareto optimality. But where regulation affects income distribution or intangible social values, an efficiency standard is, at best, incomplete.

A large dose of skepticism is appropriate here because it is hard to know whether differences in regulation really follow

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need for technological expertise — and worse, the difficulty of anticipating efficiency effects of regulation in the context of rapid technological change. It is worth noting that, in some cases, states lacking expertise have evolved ways to use the expertise of other states that have specialized in the regulation of specific industries. New York's insurance rules have been used as the model for other states, while Pennsylvania has served the same function for decades in regulating the safety of food processing.

Interest-group capture One problem that constantly dogs regulation is the risk of disproportionate interest-group influence. The institutions of regulation can offer some degree of protection. For example, sunshine rules may make capture more difficult, as may expedited review by an independent judiciary. But probably the most dependable way to minimize successful rent-seeking is to dilute the influence of individual interests by providing easy access to groups with competing interests. For example, state-level licensing of physicians, lawyers, and other professionals makes it easy to restrict entry because out-of-staters have no place at the table. By the same token, state regulation of automobile dealer franchises has made it difficult to create national dealerships and has prevented automakers from integrating retailing.

Decentralized antitrust regulation has also had the effect of facilitating interest group capture. In the Microsoft case, many

from differences in values. For example, differences in tolerance of smoking may reflect community choices — or simply the impulse to collect sumptuary taxes, or the power of tobacco growers and cigarette manufacturers. In other cases, though, there is little question that differences in regulation reflect differing local circumstances or values. A few states have legalized marijuana for medical use, while Vermont permits same-sex marriages. And many southern states have fought federal constitutional prohibitions against government-supported expression of religion.

The diversity-of-values justification for decentralization makes many social scientists uncomfortable, and with good reason. Among other problems, it implies that collective values are more than an arbitrarily weighted index of individual values — a notion that fits awkwardly in the economist's utilitarian framework. And it collides with the libertarian impulse with which most free market economists (and many Americans) identify. Hardly anyone, after all, sees the Bill of Rights as an unjustified limitation on states' rights to regulate speech or deny due process.

Opportunities for experimentation By contrast, virtually everyone pragmatically celebrates decentralization as a source of innovation in government regulation — an idea that goes back at least as far as Justice Louis Brandeis' famed dissent in the 1932 case *New York State Ice Co. v. Liebman*. Indeed, the states-

as-laboratories concept has been instrumental in the backlash against federal regulation since the 1970s. Thus, the very positive experiences of California and Texas in deregulating airlines led to a federal deregulation movement that ultimately dismantled decades-old constraints on markets in transportation and energy. The experiments with workfare in Wisconsin and other states helped to create a centrist coalition that reformed public assistance. Oregon has pioneered an effort to create some order in the way medical budgets for the poor are managed. And state experiments in public education reform, ranging from school vouchers to standardized testing, have led to a broader national campaign.

Failure counts almost as much as success. California's catastrophic experiment in deregulating wholesale electricity prices while maintaining retail price regulation is likely to influence energy regulation for the foreseeable future.

A CASE STUDY: WIRELESS COMMUNICATIONS

Mobile communications regulation merits a close look for a variety of reasons. It is very large — its total revenues of \$76 billion amounted to almost one-third of all telecommunications revenues in 2002. It is growing rapidly: In 2002, subscribers totaled 141 million — a five-fold increase in a decade. And as one of the few growth areas in information technology, the numbers almost certainly underestimate the industry's contribution to the economy because of potential spillovers in productivity.

Prior to 1993, states had the power to regulate prices and terms of service in what was then the decade-old cell phone industry. Not surprisingly, the states exercised the option. For one thing, it seemed a logical extension of state regulation of intrastate wired phone service. For another, the potential for competition was limited because the Federal Communications Commission had assigned radio spectrum for cellular communications to just two providers in each locality, one of which was the old Bell operating company.

But under the umbrella of the Omnibus Budget Reconciliation Act of 1993, Washington preempted state authority over rate and entry regulation in mobile telephony. The addition of more spectrum (distributed through federal auctions), along with improvements in technology, increased the number of potential competing systems and facilitated the assembly of six national service networks.

The FCC chose to waive its right to regulate rates and entry. But state predictions that service providers could and would exploit market power in an unregulated environment did not come true. Falling costs, combined with increased competition in virtually all service areas, has led to dramatic increases in both the number of subscribers and average usage rates along with dramatic declines in prices.

The average price of a minute of calling time fell by nearly three-quarters between 1994 and 2001. And, as the carriers rely on aggressive marketing techniques that emphasize sales of large, fixed-charge "buckets" of monthly minutes and prepaid service that obviates the need for a good credit history, the trend shows no sign of slowing. Indeed, the implementation of FCC-mandated "portability," which will allow customers to take their telephone numbers with them when they change carri-

ers, should increase competition yet more — especially competition for business users.

State proposals Note, however, that Washington did leave states some authority to regulate mobile phone service under the general rubric of consumer protection, at least where state regulation does not interfere with rates and terms. Several states have proposals in the works. The most ambitious is the proposed California Telecommunications Bill of Rights, which would limit phone service providers' discretion in a wide range of activities, with the focus on disclosure of contract terms and redress in cases in which customers are not satisfied with service. On first view, most of the California provisions seem innocuous. However, the potential costs, both in terms of carrier resources and consumer time and convenience, could be substantial. A study for Verizon Wireless by the economic consulting firm LECG estimated that the costs would exceed 10 percent of the average wireless bill. Further, it could be argued that the rules outlined in the California Bill of Rights skate dangerously close to affecting wireless rates and terms — an area not covered by state regulation.

One obvious question is whether there is evidence of any market failure to justify such intervention. What evidence there is is weak. Every area code in California has at least five competing providers, while unit service prices are falling. And though the California Public Utilities Commission does receive thousands of complaints about wireless service each year, the rate of complaints is quite low in light of the size of the market — the state has roughly 16 million cell phone subscribers. By the same token, even if there was a market failure and even if the proposed rules were on target, it is by no means clear that the benefits of intervention would exceed the costs.

More relevant here, one must ask whether the state is the appropriate level for regulation. As noted earlier, when a state as large as California tries to regulate a national market like wireless, it can dictate national standards. In effect, one state can determine federal rules without considering potential impacts on other states. While this does not negate the benefits of having states serve as laboratories for new ideas, it clearly weakens that argument.

Externalities Many of the consequences of California regulation would spill into other jurisdictions. For example, the state's Telecommunications Bill of Rights would require exhaustive disclosure in advertising, making it impractical for service providers to advertise promotions in national media without meeting California rules. More generally, any regulation that significantly raised costs and prices in California would reduce the number (or rate of growth) of subscribers and thus reduce the value of the national phone network to all subscribers.

Expertise One might also wonder whether individual states have adequate expertise to regulate wireless communications. While the states' jurisdiction is seemingly limited to areas in which it has considerable experience — information disclosure, consumer fraud, and the like — there is more here than meets the eye.

For example, wireless technology for connecting to the telephone network is converging with wireless e-mail and Internet technology. And the manner in which multiple wireless services are packaged for marketing is likely to change rapidly. Hence, the extensive disclosure and contract cancellation provisions of California's proposed regulations, designed with today's cell phone services in mind, could limit the providers' marketing practices in ways not yet imagined.

Race to the... The mobile communications industry, in ironic contrast to the people who use it, is not mobile. Providers of national service have a considerable stake in a strong presence in every state. Thus, while a state's regulatory climate may affect the pace of local investment, one cannot depend on wireless communications providers facing onerous state rules to vote with their feet. Indeed, an insidious aspect of state consumer protection regulation, where consumers cannot see the links between state intervention and the size of their cell phone bills, is that it may be catching: Regulators, hard-pressed to show they are vigilant, may well be tempted to imitate the most restrictive state model.

Interest group capture Generalizations are problematic here. It is conceivable that some service providers in some places exercise considerable influence over rulemaking. However, there certainly is anecdotal evidence that non-profit consumer groups have disproportionate influence on standard "consumer protection" issues at the state level — particularly where regulators are often planning to run for elective office.

The fact that consumer groups do not have a direct financial stake in regulation may, on first thought, seem reassuring. But those groups generally reject the notion that regulation should be subject to cost-benefit tests or that competition is a reliable source of consumer protection, and are thus inclined to support measures that, on balance, reduce efficiency.

For example, the California Telecommunications Bill of Rights would require a service provider to offer all official documents in all the languages in which it solicits business. That would certainly generate some benefits, but it might well inhibit competition for customers from smaller ethnic groups.

Moreover, consumer protection groups typically are closely allied with the trial bar. And trial lawyers have strong interests in rules that make litigation easier — and thus, raise transaction costs.

Experimentation While there may be possibilities for innovation in the regulation of wireless communications, the FCC already controls the most plausible areas for productivity- and welfare-enhancing change, like spectrum use. Moreover, there is no particular history of state innovation in what is commonly called "consumer protection." Indeed, innovation in regulation has largely been directed at minimizing the efficiency losses associated with market intervention — typically by mimicking the incentives inherent in competitive markets. Consumer groups and trial lawyers, by contrast, focus on equity issues in their world, the problem with market power is that it distributes income to sellers, not that it distorts the allocation of resources. Moreover, the trial bar has little incentive to reduce transaction costs in regulation — and in many cases it plainly has incentives to increase them.

Diversity of values In theory, one might imagine that states would have different tastes for traditional consumer protec-

tions, in the sense that some communities would accept a greater loss in efficiency to improve outcomes for individuals most likely to be victimized by misleading marketing practices. However, it is a stretch to believe that diversity generates much value here, particularly in light of the fact that every state has laws against egregious consumer fraud and that opportunities for misleading marketing will diminish under the Federal Trade Commission's new limits on telemarketing.

THE NEVER-ENDING DEBATE

Out of the context of a specific market at a specific time, it is hard to imagine a definitive answer to the question of the optimal degree of decentralization of regulation. More likely, attempts at generalization distract from serious analysis.

Nonetheless, there are some key factors in critical markets that suggest the burden increasingly ought to fall on the proponents of decentralization. Scale, scope, and network efficiencies are growing in many markets, raising the potential costs of balkanization. And rapid technological change strains the expertise of under-funded, under-skilled local regulators. At the same time, one must be careful not to assume that skilled regulators will necessarily do the right thing. The political context in which such regulators operate is critical.

The case of wireless communications is revealing. The rapidly changing industry has thrived under the increasingly light touch of federal regulation. Furthermore, attempts to reassert rights to intervene in the narrow area left to the states say more about the political economy of government than about failure to regulate adequately at the federal level. \mathbf{R}

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