Readings
of particular interest

"Runaway Bureaucracy" Revisited

"The Federal Trade Commission and Congressional Oversight of Antitrust Enforcement" by William E. Kovacic, in *Tulsa Law Journal*, vol. 17, no. 4 (1982), pp. 587-671.

The Federal Trade Commission of the 1970s is often asserted to be the classic example of a "runaway bureaucracy" operating without congressional control. In a 1979 floor debate, for example, Representative William Frenzel (Republican, Minnesota) said "the FTC's excessive nose-thumbing at the legislative branch has become legend" and pronounced the commission a "rogue agency gone insane."

This rogue-agency thesis has come under criticism recently (see Barry R. Weingast and Mark J. Moran, "The Myth of Runaway Bureaucracy—the Case of the FTC," *Regulation*, May/June 1982). In this study, William Kovacic, an attorney with the FTC, assesses the validity of the thesis as it applies to the commission's antitrust enforcement policies from 1969 to 1980. Kovacic rejects the view that the FTC's activism on antitrust matters contradicted congressional policy guidance. In fact, he finds that for most of the 1970s Congress "used virtually every tool at its disposal" to propel the FTC toward the far-reaching antitrust initiatives it later complained of.

Kovacic begins by reviewing the 1969 report of an American Bar Association commission set up to study the FTC, which he says strongly influenced Congress's later behavior. The ABA panel, though highly critical of what it considered the agency's plodding style of antitrust enforcement, recommended that the FTC keep its legal authority in the area and went on to suggest that it concentrate on economically complex matters in unsettled areas of the law, limit its enforcement activities to cases involving substantial commercial stakes, and rely more on binding, compulsory remedies. Noting the apparent failure of many earlier efforts to reform the agency, the ABA panel said that Congress and the executive branch would have to cooperate if the new antitrust initiatives were to succeed. Kovacic says these external forces along with other forces such as public opinion and the judiciary have historically not encouraged the commission to pursue a strong antitrust policy—but that the situation in 1969 was an exception.

The ABA report catalyzed powerful reform-minded forces within Congress. In the second half of his study, the author describes how these forces pushed the commission toward the frontiers of antitrust enforcement in the 1970s. The oversight and appropriations committees demanded boldness and experimentation in FTC antitrust enforcement, suggesting that the continuation of the commission's competition authority "depended upon its development of ambitious, aggressive enforcement programs." Gale McGee (Democrat, Wyoming), chairman of the Senate Appropriations Subcommittee, conveyed what Kovacic says was the prevailing congressional view in 1971 when he told FTC Chairman Miles Kirkpatrick that "we would rather you make a mistake innovating, trying something new, rather than playing so cautiously that you never make a mistake." Similarly, in 1973, Senator Ted Stevens (Republican, Alaska) informed FTC Chairman-designate Lewis Engman that he hoped Engman would become "a real zealot" in using the commission's powers.

Beyond articulating its preferred enforcement philosophy, Congress singled out such sectors as energy, food, health care, and transportation for special scrutiny and pressed the commission to emphasize structural or industry-wide enforcement strategies. It also added several important substantive, remedial, and data-gathering powers to the FTC's arsenal and passed twelve statutes enlarging the agency's role in advocating competition before Congress

and at federal agency proceedings. Appropriations for FTC competition activities rose from about $7.8 million in fiscal 1969 to roughly $32 million in 1980.

By the mid-1970s, many committees and congressional leaders were applauding the FTC's antitrust activism. According to Kovacic, this congressional enthusiasm crested in 1976, after which election defeats and retirements began to deplete the ranks of congressmen who had supported activist policies, including many committee and subcommittee chairmen. Just as programs started in the early and mid-1970s were coming to fruition, the FTC found itself required "to justify its competition projects before a Congress that had significantly less stake in defending or maintaining FTC work begun through 1976 and possessed a stronger inclination to review new proposals more critically."

"To depict the 1970s as a time in which Congress functioned as an inattentive, ineffective overseer, leaving the FTC to account only to itself, stands the situation on its head," Kovacic says. When Congress attributes ambitious FTC enforcement in the late 1970s to "runaway" bureaucracy, he adds, it avoids candidly confronting the shortcomings of the policy guidance it supplied so assertively up to 1976.

OSHA and Job Risks: Revealed-Preference Theory at Work

Risk by Choice by W. Kip Viscusi (Harvard University Press, 1983), 200 pp.

According to W. Kip Viscusi, director of the Center for Study of Business Regulation at Duke University, ninety-six major regulations proposed by federal agencies between 1975 and 1980 had a combined cost in present-value terms of between $300 billion and $850 billion. The most costly regulations were those proposed by the Occupational Safety and Health Administration and the Environmental Protection Agency. The costs OSHA sought to impose ranged from $100 million to $500 million, with the wide range of uncertainty due mostly to the unknown consequences of the agency's carcinogen policy. EPA's planned impositions totaled between $200 billion and $300 billion.

In this book Viscusi synthesizes his academic work on risk regulation, presents new empirical evidence on OSHA's effects, and examines the efficiency of various sorts of workplace safety regulation. He concludes that OSHA might have succeeded in promoting better worker health at lower cost had it pursued a more balanced approach.

In the House and Senate debates before OSHA was created in 1970, the Bureau of Labor Statistics injury frequency rate for manufacturing industries was repeatedly cited to prove that job injuries were on the rise. Viscusi says that the increase was a "statistical artifact" because the mix of injuries included in the BLS figures changed from year to year. Moreover, he observes, the BLS series was the only one of the published data series on job risks to show an increase over the period. All other series showed job risks declining in a trend that has continued throughout the century.

Since OSHA was established, job risks have declined at the same rate as before, according to the major econometric studies on the subject, Viscusi says—which suggests that the agency has had little if any success in its mission. This is not surprising, he claims: given the costliness of compliance and laxity of enforcement, one should expect firms to make little effort to comply with the regulations.

Despite the rigidity of its engineering standards, he says, OSHA's enforcement is comparatively weak. A typical firm has roughly one chance in a hundred of seeing an OSHA inspector in any given year and, if inspected, faces an average of 2.1 violations for which there is an average penalty of $193. "The risks that market forces are perhaps least equipped to handle—toxic and hazardous substances—accounted for fewer than 1 percent of OSHA violations through 1976 and even now are responsible for only 5 percent of all violations." Investigations of complaints by employees are given priority treatment but result in relatively few citations.

The author believes that OSHA should rely more in its regulation on the existing market incentives such as existing wage differentials for jobs of different riskiness. He calculates that wage premiums for risk alone add up to some $70 billion a year, which is about 3,000 times as much as business pays in OSHA penalties. His studies suggest that even workers who

are unaware of a job's risks when they take it are apt to discover the degree of hazard on the job and then quit if the job is too hazardous to be worth it to them given the wage differential. According to the author's estimates, as much as one-third of the quit rate in manufacturing industries may arise from risk avoidance. High quit rates, like compensating wage differentials, impose costs on employers and thus encourage them to reduce hazard.

Market mechanisms do not function optimally for all classes of risk, the author says, since individuals may be unaware of the risks they face even after a long time at a job. This may be of particular importance in the case of dimly understood health risks. Although government regulation may be warranted when market mechanisms fail, he maintains, it should rely primarily on individual and firm choice if it is to be effective. For example, it should employ the same wage/risk trade-off in evaluating hidden risks that workers display voluntarily in responding to known risks. Researchers studying known risks have generated a considerable range of estimates of implied values per life, from $500,000 to $3 million or more, but that simply reflects the fact that risk preferences vary greatly from one group of workers to another, Viscusi says. Those who attach relatively low value to risk avoidance are likely to be attracted to high-risk jobs.

One reason individuals differ in their willingness to accept risks arises from differences in wealth. The steady decline in fatal accidents over the past fifty years has been roughly proportional to the rise in per capita income over that period, which suggests that workers have been using their new prosperity to "buy" safety. Viscusi says that proposals to restrict the export of hazardous goods, and also the import of goods that are produced under hazardous conditions, may be attempts to impose the risk attitudes of highly advanced countries on foreign workers and consumers who might incur such risks voluntarily. The "greater danger from wealth differences," he says, "is not that the poor will choose to incur risks, but that the rich will take interventionist actions."

The author outlines a number of ways that OSHA could bring some of its standards and policies, including its carcinogen policy, into line with benefit-cost principles—among them, adopting different standards for different worker groups, as was done in the cotton dust case, and permitting the use of protective personal equipment instead of engineering controls. He would also have OSHA turn from issuing standards to providing information on job risks and encouraging "merit rating" for workers' compensation premiums. It should keep legal penalties in reserve to address selected risks, primarily health risks, that the market cannot deal with effectively. One example of a well-considered regulatory initiative, he says, is the chemical labeling regulation that OSHA proposed in March 1982.

Fresh Data on Rail Deregulation

"The Impact of Rail Deregulation on the Movement of Fresh Fruit and Vegetables" by H. Wade German and Michael W. Babcock, in *The Logistics and Transportation Review*, vol. 18, no. 4 (December 1982), pp. 373-384.

During the 1960s and 1970s the railroad business grew much more slowly than the general economy. While industrial production increased 161 percent from 1955 to 1979, and trucking, oil pipeline, and inland water traffic expanded by similar magnitudes, rail traffic grew by only 47 percent. The railroads earned 56 percent of all transport revenues in 1955, compared with the truckers' 32 percent; by 1978 those shares were exactly reversed.

The decline was especially steep in the fresh fruit and vegetable market: the rail share fell from 35 percent in 1964 to 8 percent in 1979. One reason was that extensions of the interstate highway system made trucking faster and more reliable, both of which factors are crucial in the highly volatile business of transporting perishables. But regulation was another major reason for the railroads' losses, according to H. Wade German of Union Pacific and Michael W. Babcock of Kansas State University. They argue that the Interstate Commerce Commission's lengthy rate approval process and restrictions on service prevented the railroads from adapting quickly to changing market conditions. Truckers could raise or lower their prices at will to meet large seasonal and year-to-year variations in demand because unprocessed farm products were and are exempt from

ICC trucking rate regulation. Until March 1979, however, railroads could not.

The Railroad Revitalization and Reform Act of 1976 substantially reduced the amount of rate and service regulation railroads faced. Among other things, it authorized the FCC to exempt certain commodities from all rate regulation. On March 21, 1979, the commission issued an order giving such an exemption to fresh fruit and vegetable traffic.

The authors constructed a model, using data from the period 1964–1978, of how rail tonnage of fresh produce is affected by the relative rates and service levels of railroads and trucking lines. They found that tonnage was highly sensitive to both rate cuts and service improvements, which indicates, they say, that railroads had good prospects of using their new freedoms to win back new business. And, in fact, that is exactly what happened. Rail rates on perishables declined relative to truck rates. Service improved in various ways, including the introduction of unit trains that reduced transit time.

These steps helped railroads regain market share remarkably quickly, German and Babcock say. For the four major western railroads, seasonally adjusted fresh fruit tonnage rose by 298 percent (Burlington Northern), 176 percent (Santa Fe), 166 percent (Union Pacific), and 40 percent (Southern Pacific) from the first quarter of 1979 to the second quarter of 1981, while fresh vegetable tonnage rose 107, 351, 34, and 81 percent, respectively.

Do Cuts in Federal Aid Strain State and Local Budgets?

Federal Grants-in-Aid to New Hampshire and Revenue Adequacy by Colin D. Campbell, James R. Fries, and Rosemary G. Campbell (Concord, N.H.: Business and Industry Association of New Hampshire, 1982), 23 pp.

Federal financial aid to state and local government is frequently defended on the ground that it enables the lower levels of government to cut taxes. When the federal government reduces its grants, it is argued, the lower levels of government usually have to raise their own taxes to pick up the tab.

Colin D. Campbell and James R. Fries of Dartmouth College and Rosemary G. Campbell set out to test this theory by comparing trends in federal grants-in-aid to New Hampshire with trends in the tax burden that the state and its subdivisions imposed on citizens from 1970 to 1980. (They defined the tax burden as all revenues the two levels of government obtained from nonfederal sources, including revenues from the state monopoly liquor stores.) They found that, when both figures were expressed as a percentage of the personal income of the state's residents, the tax burden tended to vary directly rather than inversely with federal aid. From 1970 to 1976 taxes increased from 11.7 percent to 13.5 percent of personal income, but after that they began to decline, dropping to 12.2 percent by 1980. Federal aid rose rapidly from 2.5 percent of personal income in 1971 to 4.1 percent in 1976, but then leveled off; in 1980 federal grants amounted to 4.2 percent of New Hampshire citizens' personal incomes.

The authors note that one cannot predict how a particular cut in federal aid will affect state and local outlays without knowing how the grant program involved is financed and administered. When Washington provides matching grants, federal and local outlays may rise and fall in tandem.

In 1980 New Hampshire and its subdivisions got 39 percent of their federal funds from waste-water treatment grants, Medicaid, and highway grants. In the waste-water and highway grant programs, the federal government achieves its cutbacks by approving fewer grant applications. Since most of these projects are financed through matching grants, state and local spending probably drops along with federal spending. In other important matching-grant programs such as Medicaid and Aid to Families with Dependent Children, the federal government cuts its outlays by tightening eligibility requirements so that fewer persons qualify for benefits. These cuts, too, reduce state and local spending.

Some aid programs are fully funded by Washington, as are employment and training (CETA) assistance and community development block grants. States and localities might respond to cuts in these programs by raising their own spending, since the programs are backed by established constituencies. But quite often the governments drop the program in-

stead, possibly because of the difficulty of raising taxes.

The authors also compare New Hampshire's finances with those of its next door neighbor, Vermont. Both the level of federal aid and the tax burden have been sharply and consistently higher there than in New Hampshire.

The drop in both states' tax burden since the mid-1970s was typical of other states as well and is an important new development that the authors say has yet to be fully recognized. Although New Hampshire has lower taxes than most other states, its tax burden had been rising for twenty years before 1976. Among the reasons for the decline in the state and local tax burden are that fewer children are attending public schools and that major highway projects have been completed. But 1976 was also the year that federal aid began to top out, which suggests that such aid had, at a minimum, not been serving to cut state and local taxes—and perhaps even that it had been serving to increase them.

No Overturned Boulder in Sight

Antitrust and Local Government: Perspectives on the Boulder *Decision*, James V. Siena, editor (Seven Locks Press, 1982), 211 pp.

Until the late 1970s it was assumed that the actions of local governments were immune from scrutiny under the antitrust laws. After all, the Supreme Court had in 1943 explicitly found state governments to be immune, and local governments are merely subdivisions of state governments. Moreover, the Court had relied in its ruling on the absence of any evidence that Congress meant for the antitrust laws to reach state actions, and there was no evidence that Congress meant for the laws to reach the actions of local governments either. In a 1982 decision, however, the Court ruled that local officials enjoyed no such general immunity. This book, edited by Washington attorney James Siena, contains a variety of viewpoints on the aftermath of that decision.

From 1975 on, the Court had been chipping away at local immunity in a series of decisions. (See "Antitrust Comes to City Hall," Joe Sims, *Regulation*, July/August 1979.) In 1978, for example, it held that municipally owned utilities were subject to antitrust challenge. This decision did not unduly alarm local officials, in part because Chief Justice Burger's opinion, which was the deciding one, emphasized that the municipal utility was a business competing with private businesses, and not many activities of local government fall into that category.

But whatever comfort local officials took in the seeming narrowness of the utility case was shattered in the *Boulder* case of 1982. The Court held, five-to-three, that the city of Boulder, Colorado, opened itself to antitrust challenge when it passed an ordinance restricting the expansion of a cable TV franchise. Rather than resolving the question whether Congress meant the antitrust laws to reach local government actions, the majority relied on an unusual distinction: it said that state governments, but not local governments, have the "attributes of sovereignty" that entitle governments to antitrust immunity. Local governments could therefore enjoy immunity, it said, only where the state had specifically sanctioned, perhaps even directed, an anticompetitive result. (Boulder had adopted the ordinance under its broad "home rule" powers rather than pursuant to explicit state direction.) In a vigorous dissent, Justice Rehnquist said the ruling might spell the end of the home rule movement by which states had devolved many of their powers to local units of government. He also predicted that courts would find it difficult to weigh local government actions in the scales of economic efficiency ordinarily used in antitrust enforcement.

Siena points out that the *Boulder* decision threw local officials into confusion, not only because they were unacquainted with the antitrust laws, but because the Court reserved many legal issues for future decision. As local plaintiffs have learned more about the *Boulder* decision they have challenged more and more longstanding practices of city councils, mayors, and franchise and licensing boards. Recently the former mayor of Houston and others were held personally liable for multimillion-dollar damages in a suit challenging the procedures the city had used when it allocated cable television franchises.

In the spring of 1982 the National League of Cities sponsored a conference on the impli-

cations of the *Boulder* decision for local government. This book consists of twenty papers from that conference. Two are by academic experts: L. A. Sullivan of Berkeley describes the development of the state action doctrine, and Leonard Orland of the University of Connecticut describes how states can explicitly immunize their subdivisions. Ten papers are by legal practitioners, most of whom offer advice on where exposure might lie and how local governments might go about avoiding it, and eight are written by local government officials. Among the authors are lawyers who participated in the Boulder and Houston cases, and former antitrust chief John H. Shenefield.

Some contributors argue that local governments not only will manage to live with antitrust liability, but will govern better because of it. Other contributors, including former Attorney General Benjamin Civiletti, would like Congress to overturn the decision and restore local immunity—but complain that the lawmakers seem in no particular hurry to do so. Siena believes there is also a good chance that, should Congress act, it will immunize only "traditional" local governmental functions in the health, safety, and welfare areas—which means that antitrust will have become a permanent fixture at City Hall.

Regulation of Gene-Splicing: The Story So Far

"Industrial Involvement in the Development of NIH Recombinant DNA Research Guidelines and Related Federal Policies" by Joseph G. Perpich, in *Recombinant DNA Technical Bulletin*, vol. 5, no. 2 (June 1982), pp. 59-79.

When recombinant DNA technology came to the fore in the mid-1970s it brought two widely held values into collision: free scientific inquiry and protection of the environment and public health and safety. This article describes the six-year process by which the National Institutes of Health developed guidelines for recombinant DNA research. The author, Joseph G. Perpich, was associate director of NIH for program planning and evaluation at the time and is now vice-president of Genex Corporation of Rockville, Maryland.

Almost as soon as researchers discovered how to transplant genes from one life form to another, environmentalists and others began raising questions about the risks such transplants might pose to workers or, if the organisms escaped, to the public and the environment. In October 1974 NIH established a panel to develop safety guidelines for DNA research. The panel reported its recommendations in January 1976, but the NIH director did not adopt them at once, deciding instead to air the issues in an open forum of scientific and public opinion and then compile a public record to back up the eventual decisions.

The resulting guidelines, issued June 23, 1976, provided for monitoring of research but stopped short of formal regulation. The NIH's work, however, was far from done. Over the next three years, it was absorbed by three major related issues: whether the guidelines should be made mandatory (and, if so, whether they should preempt state regulation), whether the environmental impact statement on the guidelines had been adequate, and whether recombinant DNA inventions should be patentable.

- Making the NIH guidelines legally binding would logically have required legislation, because existing statutes, either alone or in combination, did not give regulators the authority to reach all DNA research. A panel originally created by the Ford administration in 1977, and whose work the Carter administration endorsed, recommended legislation to create such regulatory authority and to preempt state regulation except where the Department of Health, Education, and Welfare saw fit to grant an exemption. After debate on this and similar proposals, committees of both House and Senate endorsed bills that were more restrictive than the administration bill. But in the end Congress failed to pass legislation on the subject, in part because new scientific evidence indicated that many types of DNA research were not really so dangerous. In fact, NIH itself soon began loosening its guidelines, progressively exempting broad categories of research from coverage as the safety of DNA research was documented.

- NIH also had to fend off two lawsuits brought under the National Environmental Policy Act. The first suit, which was later dropped, claimed that it was illegal for NIH to publish

guidelines or allow research to proceed before finishing its environmental impact statement. The second suit charged that the agency's impact statement on one of its own proposed DNA experiments was inadequate. The court upheld the agency, however, and allowed the research to proceed.

- The patent issue arose in 1976 when Stanford University and the University of California asked NIH for an advisory opinion on whether they could patent DNA inventions they had developed with the agency's financial support. Under a presidential order issued in 1963, the federal government can enter into an "institutional patent agreement" with a university or nonprofit institution waiving federal rights to inventions developed under federal grants and contracts. The Department of Justice, arguing that DNA inventions were too important to be handled under these IPA rules, wanted the federal government to keep title to all patents in the area, as it does for nuclear fission. Private parties were already allowed to patent other biological products and processes, however, and the NIH director concluded that there was no compelling reason not to extend these rights to federally supported recombinant DNA inventions as well. (The Supreme Court's *Chakrabarty* decision confirmed this line of reasoning.) Commercial projects received another boost when Congress passed the Patent and Trademark Act of 1980, which gave universities, small businesses, and nonprofit organizations the right of first refusal to ownership of items they invent under government grants and contracts.

In the past few years, as commercial applications of DNA research have developed, the industry's programs of voluntary compliance have become more sophisticated. The author believes that NIH succeeded in creating a "flexible, open system that can accommodate new scientific information" without the new legislation or new independent regulatory commission that many had called for early in the controversy. He concludes that the openness of the process by which the guidelines were developed helped ensure their survival, since oversight by Congress, the executive branch, and the public and scientific communities strengthened the reliability of NIH's decision making and ensured public acceptance of its eventual decision.

Thoughts on Broadcasting Reform

(Continued from page 20)

if not greater economic efficiency, radio frequency users should have to pay a fee at least large enough to recover the out-of-pocket costs of administering the current regulations. At present, private users of the radio spectrum—which are among the most prosperous elements of American business—do not pay even nominal filing fees. The FCC tried in the seventies—halfheartedly, some say—to impose small annual user charges sufficient to make the agency self-sustaining, but its efforts were overturned on appeal. More recently, Senator Bob Packwood (Republican, Oregon) and others on the Senate Commerce Committee have commendably called for adoption of such a fee system by statutory means.

Even this very rudimentary application of spectrum economics, however, has encountered strident opposition. Parts of the industry object to having to pay fees for what they contend taxes should cover. State and local government agencies want exemptions. Then, of course, there is the question whether the federal government itself should be charged for its occupancy of some 40 percent of the radio spectrum. Federal agency use now is regulated by the National Telecommunications and Information Administration (NTIA) of the Commerce Department, and relative to the FCC's cost of enforcing its private sector regulations, NTIA's costs are modest indeed. But if the government were to be assessed at the same rate as private users, those costs would be substantially bigger.

Not many players in the spectrum economics field, however, are content to simply fulfill the "equity principle." For some authorities—including Chairman Timothy Wirth (Democrat, Colorado) of the House subcommittee on telecommunications, at least until recently—no deregulatory scheme is acceptable unless it embodies a second principle, "equity plus." That principle would require the fee to cover not merely the costs of regulation but also some part of the economic value of the privilege conferred.

Underlying this approach to broadcast deregulation is the belief that the prevailing regime ensures a sort of payment-in-kind to the public. In return for their radio or television licenses, the argument goes, broadcasters be-

come public trustees and are required to undertake sundry tasks that the government, if not the public, considers socially redeeming. Thus, broadcasters have to give discount rates to political candidates, air a certain number of hours of "uplifting" public-affairs shows that no one would ever sponsor, and so forth. If these regulatory impositions are to be lifted as part of an overall deregulation measure, broadcasters must, in fairness, pay more than just the administrative costs of their own regulation.

This ransom or hostage approach has a certain logic and enjoys fairly widespread appeal among all parties except TV broadcasters, who are strongly opposed. The most obvious problem it raises is how to set the fee—that is, how best to calculate the "true value" of the various public services the present regulatory regime supposedly provides. A related problem, once again, is what to charge government for its use of the spectrum.

Ideally, one would want spectrum costs to be figured into the overall cost of the government's spectrum-consuming programs. In estimating the total costs of a weapons system, for example, defense planners should be obliged to take into account not only its hardware costs, but the "price" of the spectrum needed to support it as well. Currently, they pay nothing for the radio channels they use—nor does any other part of the federal establishment, including Congress, the Supreme Court, the Postal Service, even the FCC itself. Obviously, however, federal spectrum usage costs something, and perhaps a substantial amount. Were the radio spectrum not a free good to government agencies, they might release for private exploitation part of the 40 percent of the spectrum they now use. They might also have an additional incentive to use the spectrum more efficiently, by purchasing more finely tuned equipment, for example.

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The practical problems of moving to a federal "equity plus" assessment make one wonder whether this trip is really necessary. Is the defense budget—which some find too high already—to be further ballooned? Since the receipts from any such assessment would simply flow from one agency's pocket to another's, why bother? What about the prospect that foreign countries might follow the U.S. example and begin levying charges on U.S. government use of radio frequencies abroad? Congress might be particularly loath to sanction budgetary churning in this area, given today's fiscal austerity imperatives, if the scheme also meant that our government would pay Japan for the radar and associated communications operations we support today to defend its islands. Placing "equity plus" assessments on federal spectrum users, in short, may be economically elegant. But persuading Congress to embark on a brave journey toward greater economic efficiency is another matter.

A Spectrum Market. If radio frequency users are to reimburse the government for both regulatory costs and the "public service" benefits forgone, it would seem logical to give them some kind of indefeasible property right in their frequency. As a practical matter, most licensees already enjoy a property right of sorts, the simplistic language of the 1934 Communications Act notwithstanding. Legally, a property right in its most fundamental sense is simply the ability to enlist the government's aid in furtherance of one's prerogatives. One has a property right to one's home, for example, because one can enlist the aid of the police, the courts, or other governmental agencies to keep somebody uninvited from moving in.

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In the case of radio users, the FCC license confers among other fundamental rights the power to enlist the government's help in securing the user's relatively exclusive use of the channel involved (unimpeded in the case of most services). If, for example, another firm starts broadcasting on television channel 4 in

Washington, it is up to the government, not simply NBC, to get the trespasser to cease and desist. Most spectrum users today also enjoy yet another of the basic attributes of property, the right to pledge or alienate their holdings. Granted that the FCC's anti-trafficking rules still impose certain residual restrictions on license sales (a TV license, for example, cannot be sold separately from the station's facilities). But anyone who doubts there is a fairly active market in radio spectrum properties should check the weekly want-ads section in *Broadcasting*, the leading trade publication.

A substantial body of legal writing purports to address largely imaginary problems of adequately defining property rights to the spectrum. Suffice it to say that, despite the FCC's long-perpetuated myths about the people's airwaves, defining such rights is not really a problem, given the diversity of ownership and other entitlements schemes developed by generations of lawyers.

Although radio licensees may thus have property rights much like those one enjoys to one's home, these rights are subject to very rigid zoning codes. One may not, for example, aggregate rights to adjacent land mobile-radio channels and commerce broadcasting TV signals (even assuming that existing sets could decipher such signals). Conversely, and although not a few undoubtedly would like to do so, one may not obtain the rights to an unassigned, vacant UHF channel and break it down into land mobile-radio channels. As previously explained, under the FCC's table of allocations, one set of channels is allocated to one service, and another to another. That is why the economists go on to demand that channels be bought and sold as unencumbered, unzoned real estate, to be divided, combined, or otherwise exploited as efficiently as possible. This is not a completely fanciful notion, but it raises legal, economic, and technical problems that are even more complicated than those of the "equity plus" scheme. Not only are not all hertz technically equal, fungible, and interchangeable, but the FCC's categorical allocations generally track international allocations that are fairly well fixed by treaty. While we could legally depart from the international allocations, provided we did not cause interference to other signatories, ordinarily the United States sticks closely to the international radio frequency rules.

Two other obstacles stand in the way of moving quickly to a full market approach. The first is the size of the sunk (or embedded) costs associated with the present regulatory scheme. According to one estimate, for instance, there are now more than $70 billion worth of television receivers in some 96 million homes, a hardware investment substantially larger than the broadcasting industry's. A change in our current engineering practices and rules would potentially jeopardize the efficient performance of those sets. Similar problems exist in other radio services, although perhaps to a lesser extent. The second obstacle is the impact that changes in the rules affecting other services might have on television equipment. As those who have experienced television interference from CB radio or other sources can attest, one service can directly affect the performance of others. The FCC minimizes these problems today by making relatively few changes in existing services and following the traditional frequency management rule that the "last in" (the new services) adapt to the existing radio spectrum environment—even when, as often happens, the incumbents can adapt more cheaply than the newcomers. In any event, the existence of substantial sunk costs, major public investment, and technical service interrelationships greatly complicates any plan to move to an unregulated market.

Finally, there is the familiar question of what to do about the federal government's portion of the spectrum. Idealists may think the government should buy spectrum just as it buys paper and typewriters, but realists know that will never happen, particularly given how much spectrum it consumes. Charging private users but not the government is equally impractical, because the government's 40 percent is not concentrated in a particular portion of the spectrum but consists mostly of its share of bands that federal and private parties both use.

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The theory of the second best teaches that if one has a solution to a problem—but a key in-

gredient is unavailable—one is probably better off finding some quite different solution. In the case of the full market approach to spectrum economics, two of the necessary ingredients are to ensure (1) that we achieve far greater flexibility of spectrum use (including the ability to shift uses between allocation categories) and (2) that all users (or at least most) abide by the marketplace rules. And from the outset we know that the largest single user—government—in all probability will not play the game.

Toward Piecemeal Reform

The MacAvoy-Besen-Nelson law of deregulation holds that the more a given regulatory system departs from desirable competitive, pro-efficiency, and marketplace norms, the greater the costs of changing it and thus the harder it will be to change. Today's radio spectrum management system was designed initially to further engineering, not efficiency or competitive, goals. Given the major problems that have been encountered in simply trying to implement the "equity principle"—that most rudimentary of the spectrum economics notions—the chances of our shifting to a full-blown spectrum market in the short run are not great.

Fortunately for the dyed-in-the-wool deregulators, however, we are already implementing some variations on that scheme. Be sure not to tell anyone. But, for a long time, people have actually been selling FCC radio frequency licenses, the people's airwaves—although, for propriety's sake, the price in the pertinent sales documents is labeled "capitalized good will and other intangibles." The FCC this spring sanctioned subdividing FM radio channels in some instances in order to allow FM broadcast licensees to utilize the subcarrier portion of their signal to transmit data, to provide paging or beeper services, and the like. Merrill Lynch and public broadcasters have an experimental authorization to explore means by which the "vertical blanking interval" that is part of the television signal can be exploited for common-carrier-like offerings. Piggybacking services of these kinds are one of the objectives of those who are urging upon us a purer, and more obvious, regime of spectrum economics.

We are, in short, kind of edging up to a system of spectrum economics, and someday we may even get there. But it will not be soon. ■

CAB + ICC + FMC = NTC?

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matter. The ICC exercises the same sort of policy judgment when it considers new applications for trucking authority.

To complicate matters, the executive branch may well wish to appear to distance itself from especially touchy or unpopular decisions. One such notable case is that of reciprocity in international traffic, where the White House currently has it both ways: the independent CAB makes the determination that foreign countries have unfairly denied reciprocal landing rights to U.S. carriers (and is thus supposed to take the heat) but the President himself has ten days in which to disapprove its retaliatory measures. Similarly, the FMC recently came close to retaliating against Venezuela's shipping lines for that country's alleged exclusion of U.S. carriers from some bilateral trade, with the executive branch reportedly exerting considerable influence behind the scenes. (The dispute was resolved through diplomatic negotiations instead.) Even on reciprocity matters, however, there is precedent for vesting power directly in the executive branch: the Interior Department passes judgment on foreign reciprocity in granting mining rights on public lands.

Reformers might have more clout on these structural matters if they all agreed on one view. Instead, one school of thought holds that structural reform is, if not irrelevant to the substance of agency decision making, at least a tremendous diversion from the task of substantive reform. Those who believe that structures do matter are more or less evenly split between proponents of independent-agency and executive branch status, quasi-judicial and informal decision making, and single-administrator and multi-commissioner format, so that they practically cancel each other out. The political actors, for their part, typically take a strong interest in the subject even if they do not have an interest in the substantive outcomes.

Perhaps the assertion that would meet with the widest approval is that deregulation should be taken as far as it can go before any structural reform is attempted (which is the Transportation Department's position, too). As one Capitol Hill staffer put it: "Empty the boxes before you stack them."