AIRWAVES FOR SALE?

SPECTRUM FEES VS. SPECTRUM LIBERATION

Milton Mueller

FOR MORE THAN FIFTY YEARS, the right to broadcast on a particular frequency has been considered a privilege, not a property right. In exchange for a license giving exclusive use of a channel, broadcasters have been required, among other duties, to air a specified amount of religious, educational, and public affairs programming and to ascertain the needs of their audience through interviews with "community leaders." The constitutionality of this exchange was decisively upheld in 1943 when Chief Justice Felix Frankfurter, speaking for the U.S. Supreme Court, wrote that the "fixed, natural limit upon the number of stations that can operate without interfering with each other" justified Congress's decision to impose the responsibilities.

If Frankfurter's "fixed, natural limit" was ever strictly valid, it is plainly at odds with reality today. Refinements in electronics allow us to squeeze more and more information into a given bandwidth without interference. New distribution technologies have arisen that either use new bands of the electromagnetic spectrum (as do direct broadcast satellites) or avoid using the spectrum altogether (as does cable). Broadcasting is now just one segment of an integrated and highly competitive telecommunications environment. "Scarcity" continues, as it does everywhere in the economic realm, but "fixity" is no more.

As the broadcast market becomes more like other markets, the "public trustee" model of regulation is slowly giving way to a successor. Chairman Mark Fowler of the Federal Communications Commission (FCC), a former broadcaster, rather prosaically calls it "the marketplace approach." Others, like Senator Robert Packwood (Republican, Oregon), compare broadcasters and cable services to "electronic publishers" who should enjoy exactly the same freedom from government control as the print media.

Whatever its name, implementation of the new approach would require a top-to-bottom overhaul of the regulatory framework of the 1934 Communications Act. And by now, the forces of change are already straining at the limits of that law. For several years the FCC has been hacking away at its regulatory thicket, eliminating paperwork, lowering barriers to entry, easing content regulations and ownership restrictions. All this has been done on its own administrative discretion, however, which

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means the reforms could be reversed by a subsequent commission. Only statutory change can eliminate this source of uncertainty and push deregulation further.

Thus the responsibility for reform now falls on Congress. Except in 1981, however, when the Senate and the House passed a minor law extending radio and TV license terms by a few years, they have been unable to get together on broadcast deregulation. Variations on a proposal introduced by Senator Packwood have passed the Republican Senate three years in a row, only to die each time in the House Energy and Commerce Committee's telecommunications subcommittee. The senator's latest attempt is S. 55, a bill that would codify the FCC's deregulation of radio and eliminate the comparative aspect of broadcast license renewal. S. 55 passed the Senate in April but has been holed up in the House subcommittee. Representative Timothy Wirth (Democrat, Colorado), who chairs the subcommittee, believes TV is not competitive enough to be deregulated, and has his doubts about radio too. Representative John Dingell (Democrat, Michigan), chairman of the full committee, adds that deregulation gives broadcasters "exclusive and highly profitable use of a scarce and valuable resource [the channel] in perpetuity without any accountability." "Where," he asks, "is the quid pro quo for the public in that arrangement?"

The old "quid pro quo," of course, was the broadcaster's "public service" obligation. But although the rationale for this obligation is unraveling, Congress seems unwilling to let it go without substituting something else—much like the French kings who consented to free the peasants from the forced-labor corvée only if it were commuted to a plain money tax. In the case at hand, the price broadcasters would pay for their freedom would be a "spectrum fee" for the exclusive use of a frequency or channel.

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As Henry Geller, former head of the National Telecommunications and Information Administration (NTIA), puts it, the proceeds could be funneled to "services which under the present scheme were to be part of the radio broadcaster's quid pro quo"—that is, public radio broadcasting for educational and cultural programming and minority radio ownership for programming diversity.

The idea of a spectrum fee/deregulation trade-off dates back to 1978 when former Representative Lionel Van Deerlin (Democrat, California) unsuccessfully attempted a comprehensive rewrite of the Communications Act that would have given broadcasters their licenses in perpetuity and freed them from the equal time and fairness rules in exchange for a fee. The fees, ranging from 0.25 percent of the smallest stations' revenues to a whopping 25 percent of the largest, would have been plowed into a fund to support public, educational, and minority programming. Broadcasters hated the idea.

But although Van Deerlin left Congress not long thereafter, his idea had staying power. The National Radio Broadcasters Association (NRBA), impatient for statutory deregulation, came up with a proposal to have radio stations pay from 0.25 to 1 percent of their gross revenues to public broadcasting in exchange for legislation that would lift all radio regulations (except for the equal time and fairness rules, which, not so incidentally, guarantee elected officials access to broadcast time). Had this scheme been implemented in 1980 and applied to television as well as to radio stations, it would have generated $210 million. Last September, in a speech before the NRBA, none other than Chairman Fowler himself endorsed the concept of a fee/deregulation trade-off.

Fees of a very rudimentary sort are already included in S. 55. This bill would charge radio broadcasters $1,200 for a license application and $6,000 for a hearing, a charge intended to cover the costs of processing. In April Wirth outlined his own fee idea, which would cover radio (but not TV) broadcasters. It would give the former a lot for their money: repeal of equal time and fairness "in all but the smallest markets," elimination of comparative renewals, "*long* term license stability, not just seven-year, ten-year, or fifteen-year terms," and statutory codification of the FCC's 1981 rulemaking lifting most content regulations on radio.

Unlike the NRBA, the powerful National Association of Broadcasters (NAB) is unwilling to support any fees beyond those needed to de-

fray the costs of administering regulation, as in S. 55. It sees scarcity-based fees as simply a "tax on broadcasters" that could be raised at any time. And public broadcasting, it believes, should be funded from general tax revenues. So the NAB has been trying to circumvent Wirth's subcommittee by attaching deregulation measures to an FCC authorization bill.

The Economics of Spectrum Fees

On the surface, fees look like the type of market-oriented device economists like, a sort of price system in miniature. They have the appearance of a tax on "rents," which economists often like to think is the sort of tax that avoids distortion of the marketplace use of the good that is taxed. Nor would there seem to be equity objections: having received something as valuable as a broadcast license, the theory goes, broadcasters ought to pay for the privilege. After all, if licenses were auctioned off they would bring prices ranging up to the hundreds of millions.

But it turns out to be difficult to come up with any actual charge structure that simulates the real-world qualities of a price system. Spectrum fees could certainly succeed in raising revenue, but at the cost of misallocating spectrum resources and raising severe equity questions. Because the fees would have to be set in advance, using an essentially arbitrary formula that would be hard to change with economic conditions, there would be, at best, only rough correspondence between the size of the fee charged and the economic value of any particular channel. This uncertainty means that unless a fee formula is set very low it will drive some low-budget operators out of business, especially in rural areas.

There are two possible kinds of formulas. The type of fee FCC Chairman Fowler seems to favor would be based on how much spectrum a broadcaster uses. The type of fee that Van Deerlin and the NRBA proposed would be based on a broadcaster's revenues or audience size.

Quantity-of-Spectrum Fees. The Fowler type of fee would require spectrum use to be quantified as a function of bandwidth, area covered, time, and power density. Unfortunately, no one has ever come up with an adequate unidimensional measure of the dimensions of the spectrum. Unlike land, oil, or beef, which can be measured in terms of a single unit like weight or area, the dimensions of the spectrum are incommensurable. There is, in other words, no way to compare various combinations of bandwidth, geographic scope, and time fairly. Some observers refer to the spectrum as a "five-dimensional resource," counting the three spatial dimensions plus time and bandwidth. One engineer—not to be outdone—found no fewer than *eight* different "dimensions" by including such factors as polarity.

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In fact, the spectrum is better compared to a right-of-way than to a pool of oil or field of wheat; one use does not always preclude other uses. The appropriate market price would be determined not by how much spectrum is "occupied" by the user, but by which alternative uses for the channel he crowds out. No fixed engineering standard can establish that; it depends on who else in the area would like to use the channel at a given time and whether uses are entirely incompatible—a condition that changes as technology changes.

Finally, the economic value of a channel has little to do with the power or bandwidth used. A rural station may require a powerful transmitter to reach a few thousand people, while a low-power station in New York City may reach millions. The logical implication is to base fees not on technical characteristics but on audience size.

Fees Based on Revenues or Market Size. Formulas based on a station's revenues or potential revenues (market size), however, discourage optimal use of the spectrum because they penalize those who use it most efficiently. An AM radio station occupies only 10 kHz, while an FM station takes up 2 MHz, or 200 times as much bandwidth. (The added versatility that comes with the extra bandwidth makes FM even more valuable.) Yet an FM station's revenues (and thus fees) may be lower than those of an AM competitor.

Moreover, as Fowler has rightly noted, if the spectrum fee idea is valid, it should apply to *all* spectrum users, not just TV and radio broadcasters. But here is where the real bureaucratic nightmare begins. It may make some sense to set fees by comparing two television channels with each other, or by comparing the revenues of a VHF-TV broadcaster with a UHF competitor or even a radio station. But what about the businesses that use the radio spectrum—telephone companies, paging services, taxicab dispatchers, and many others? What about a cable system that retransmits broadcast signals for profit—should it pay too, and how much? When AT&T routes a long-distance call over both radio and other lines, how much of its revenues from the call should be attributed to spectrum use? Since the fee structure would have to be based on massively simplified assumptions, it could very easily encourage misallocation of spectrum.

In support of their advocacy of fees, proponents cite analogous "user fees" in other areas. But their examples are not reassuring. Daniel Brenner, legal aide to Chairman Fowler, has likened the fees to a charge per axle on toll roads—and axle charges have been found to be a bad proxy for the actual damage trucks do to

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The Market Alternative

Of course, if every broadcast station changed ownership every week, the value of every license could be estimated with satisfying accuracy, for the purpose of assessing fees. The trading price would reflect the true scarcity of broadcast licenses because it had arisen from actual market exchanges, and it would *automatically* express and respond to changes in supply and demand. But the station "price" implicit in formula-based fees would not change automatically—and even if it did it would still be impossible to compare radio and TV frequency prices fairly with prices for other parts of the spectrum, because spectrum cannot now be transferred from one use to another.

More fundamentally, there is no reason why the market itself should not be allowed to define and create new channels.

This brings us to the underlying problem with all of these schemes, which is that the FCC would continue to allocate particular frequency bands to specific uses, define what is a "channel" for each band, assign these channels to applicants, and thus limit the total number of users. This is the real flaw in the system. The FCC has begun to address the problem with its decision to "drop in" new FM stations, and with any luck it will also drop in VHF stations or even revise its assignments entirely to make room for newcomers in the largest markets.

More fundamentally, there is no reason why the market itself should not be allowed to define and create new channels. The best way of doing this would be to give existing spectrum users full property rights, letting them resell and subdivide channels freely and reach agreements on interference with neighboring stations. The FCC's role would be reduced to guaranteeing a certain measure of noninterference in cases where adjacent stations had reached no such agreements.

Quid for What Quo?

What about the equity arguments for fees? These, too, may seem compelling at first glance. TV stations in major markets are being sold at prices of more than $200 million. In 1982 alone station trading reached a total of $998,398,000, and since 1954 it has added up to $8.7 billion. Everyone knows that station equipment accounts for only a tiny portion of those prices. Most of the rest represents the value of the exclusive licenses.

The temptation, then, is to tax away some small share of this large windfall. The problem

is that in most cases the windfall was long ago captured by the original licensees. License holders who bought their licenses from earlier holders at market rates have no "windfall" to tax.

There is a legitimate distinction, however, between the portion of license value that derives from genuine scarcity and the portion that derives from the FCC's restrictive frequency allocations. The way to benefit consumers is not to divert this monopoly capitalization to the government's coffers, but to do away with it entirely by opening up the market. To the extent that licensing creates *artificial* scarcity, the market prices of frequencies are like truckers' operating rights; and having the FCC charge for their monopoly component is no more of a solution than it would be in the trucking case.

What about Public Obligations?

Some of the broadcasters' "public-service" obligations, like the obligation to provide news, are voluntarily fulfilled in large quantity by the market. Others, it is argued, must be provided by public broadcasting. Even FCC Chairman Fowler, often accused of excessive reliance on the marketplace, thinks an unregulated market would fail to provide adequate programming for children and the elderly, presumably because these audiences do not appeal to advertisers.

But this conception of the "marketplace" is too narrowly economic. Many noncommercial institutions, including several important magazines, thrive in our commercial culture with neither financial profits nor government support, relying instead on outside support. Deregulation does not mean turning all stations into commercial enterprises. Simon Geller's one-man classical radio station in Massachusetts was not a "commercial" operation—which did not prevent the current regulatory regime from taking away its license and turning it over to a large, commercial enterprise.

Here again the fee proposals fail to get to the root of the problem. The conditions that led to the establishment of public broadcasting are changing. The new technologies, not least home recording, are segmenting the market into special interest groups capable of sustaining programming for minority audiences without advertising. There are already many cable and satellite programming services that specialize in such offerings as news, Spanish-language programming, weather, the arts, and children's fare.

The needs once addressed by public broadcasting subsidies would be best met by the kind of deregulation that would make telecommunications as open and accessible as the print media, not by creating a subsidy fund to insulate public broadcasters from the realities of public choice. Opening up the allocation of spectrum, the use of satellite transponders, the franchising and interconnection of cable systems, and the entry of telephone companies into the market would have a lot more impact on our future information diet than boosting the budget for the Public Broadcasting Service.

At the same time, public broadcasters themselves should be freed of federal restrictions. They should be allowed to sell ad time if they wish. They should also, as the Temporary Commission on Alternative Financing for public broadcasting recommended in July 1982, be allowed to raise money by leasing their excess satellite capacity and by letting unused bits of spectrum be employed for data transmission and similar uses (a process that has already begun).

But as the NTIA has noted, public broadcasting may also have to start economizing on its services, if only by lessening the enormous amount of signal overlap in the system. Of the 288 public stations, 184 overlap in signal coverage by 50 to 100 percent. Thus in Washington, D.C., viewers can tune in four different public channels whose programming is duplicative much of the time.

The Politics of Fee Proposals

The important and often overlooked question is: how much do broadcasters really *want* to be deregulated? Unlike the airline and trucking industries, broadcasters have seized on the term "deregulation" as their own; but the cases may not be that different after all.

The National Association of Broadcasters opposes freeing up the spectrum; in fact, there is some question as to whether the broadcast industry would even like to get rid of all of its traditional "public trustee" obligations. Those

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THE EDITORS respond:

We cited Justice Hugo Black's view that the First Amendment bans even "one single penny" of advocacy funding. Shane seems to find Black's rule "plainly specious" because it is now broken so often, in letter and spirit, by the executive branch.

Yes, presidents and cabinet officers are free to lobby Congress or mobilize pressure groups, just as they are personally free to involve themselves in controversies of other sorts—by campaigning for senatorial candidates or leading religious movements, for example. The question here is whether it is improper for them to spend program funds by the million to further these personal efforts. In many cases Congress has decreed its impropriety: Title 18, section 1913 of the U.S. Code flatly prohibits executive agencies from lobbying with appropriated moneys.

We agree with Shane that executive officials find it very easy to spend discretionary funds on other sorts of advocacy—but that is an argument for, not against, our position. There is no need to resolve the quibble over whether the process by which a bill becomes law is an "obstacle course"; if it is a simple process, all the less reason for an executive official to short-circuit it by spending money on one side of a controversy that Congress has not yet acted on.

And any misgivings about elected officials' advocacy apply triply to grantee advocacy. Elected officials are directly accountable to the voters; the federal bureaucracy (which is covered by such laws as the Hatch Act, as well as section 1913) less so; and grantees least of all. Even assuming that the civil servants who administer the grant do not sympathize with the grantees' illicit lobbying, they find it hard to enforce anti-advocacy rules after the fact, especially since grantees frequently enjoy due process rights that can amount in practice to a presumption of grant renewal. Grantees very often retain their funding even after their original sponsors have been repudiated at the polls.

Shane's only stated reason for considering the regulations unconstitutional is their "overreaching" and "poor fit," which suggests that he agrees with us that prudent balancing is needed at the margin. Such balancing would be made easier if OMB's opponents were willing to admit that advocacy funding raises serious questions of ethical governance. ■

Spectrum Fees vs. Spectrum Liberation

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functions serve as a handy excuse for restricting competitors: the NAB argues against deregulating direct broadcast satellites and for requiring cable to carry local TV stations (the "must carry" rule) on the grounds that these rules help ensure public service broadcasts. Indeed, the NAB has actively opposed every effort by the FCC to undo these rules. What it seems to want is not a property right in an unregulated competitive market, but something like a feudal land grant, held under strict conditions and not to be transferred to just anyone that happens along.

New competition should be a highly attractive alternative for those, like Representative Wirth, who believe television is not sufficiently competitive now. It is the broadcasters who are the real roadblocks to reform. After all, they have little to lose if Congress fails to act. Their license tenure is already fairly secure. Of the last 14,000 licenses to come up for renewal, less than 100 were put up for evidentiary hearings. Only two stations have lost their licenses in the past forty years through petitions to deny, and not many more through comparative renewal. Add to this the recent law extending license terms and a recent court case that gave incumbent licensees a "renewal expectancy," and what is left of the broadcasters' motive to change the system?

Senator Robert Packwood, whose crusade for First Amendment rights for electronic media has been foundering on broadcaster apathy, has been moved to comment, "I sometimes wonder deep down if broadcasters really, really want out from under the content doctrines." A few months ago the influential trade journal *Broadcasting* asserted that "a growing faction in the industry appear to be having second thoughts about pursuing further deregulation at all. Their reasoning: that the game isn't worth the candle; that the benefits of further bargains would be far exceeded by the price extracted by Congress."

Perhaps the real lesson of the fee-vs.-deregulation struggle is that it represents a tremendous failure of the imagination on the part of all concerned. The revolution in telecommunications technology demands an equally comprehensive reform of the premises of regulation. Yet the spectrum fee proposals try to avoid the necessity of making radical alterations by striking a bargain among the established players. Broadcasters would get more freedom without being subject to the discipline of a full market. Public stations would get a cozy subsidy. Congress would get extra revenue (depending on the size of the fee). In short, everyone would get a quid pro quo except consumers—who want and deserve added diversity. All very neat for the established powers, but it hardly deserves the name of deregulation, or the support of neutral observers. ■