



# RFF Redux

## Revisiting *The Invisible Resource: Use and Regulation of the Radio Spectrum*


This past January, the Telecommunications Act of 1996 was passed with wide and enthusiastic support. The act, its supporters touted, would unleash the telecommunications industry, generating millions of jobs and allowing the U.S. to realize the full potential of the Information Age.

Back in 1964, however, taking an in-depth look at the radio spectrum from an economic perspective was quite “far out.” At least that’s how one member characterized the RFF Board of Directors’ decision to fund Harvey J. Levin’s research into the economic value of the spectrum—that portion of electromagnetic waves used to relay information through the air. By the time Levin published his findings in 1971, RFF and the Brookings Institution had cosponsored the first-ever conference on spectrum use and regulation. As a practical matter, however, market considerations still played almost no part in the spectrum’s allocation. Levin’s book was *the* comprehensive treatment of this new economic perspective, which influenced young

scholars, among them Molly Macauley, now an RFF senior fellow exploring the economic values of outer space. “In the world of economists, his ideas were not radical,” she says, “but in the world that would need to use them, they were.”

Today Levin’s notion of realizing the spectrum’s true market value via auctions is occurring, but not without controversy.

Auctioning off certain portions of the spectrum has brought in \$20 billion to the federal treasury since the Federal Communications Commission began the practice in 1993. Heralded by some, auctioning is denounced by many who view the spectrum as a motherlode to which they should be given access.

Why is auctioning now taking place despite resistance? For starters, it produces revenues that help in deficit reduction. Also, as Macauley notes, not all spectrum is in play. The portion used by radio and television broadcasters remains off limits. To date, most of the spectrum auctioned has been for highly specialized services such as direct-to-home television via satellites, taxicab dispatching, and paging. Another reason for increased acceptance, Macauley thinks, may be the rise of a new generation of government officials, some of whom were introduced as students in the 1980s to the then-novel idea of using market incentives in resource allocation. While she is pleased to see the ideas of a mentor gaining acceptance, Macauley does regret that Levin did not live to see auctions take place. In many ways his book can now be considered quite “up to the moment.” 

### Today and Twenty-five Years Ago

Excerpts from *The Invisible Resource: Use and Regulation of the Radio Spectrum* by Harvey J. Levin (RFF, 1971) remain pertinent today for what they say about the spectrum as a public asset and as an economic commodity.

#### Overriding Public Value of Spectrum

Few natural resources have been as frequently or exclusively viewed from a strictly social vantage point as has the spectrum. Public waterways and national forests have recreational uses; public lands, educational uses; strategic materials, military value. But in each case there are strictly economic or business uses, too...With the spectrum, however, there is no organized market...The absence of a market tends to exacerbate the...sense of “spectrum scarcity.”

Why the spectrum managers have, almost from the outset, minimized or neglected the economic aspects of their allocational decisions...may reflect in part those elaborate congressional directives which underline the public character of the spectrum and in part also a longstanding recognition of the resource’s “unique” potential for social, political, cultural, and military purposes.

The public’s demand for recreation or education may be hard to estimate, but tentative estimates along with other relevant data will surely help us avoid the anomaly of using highly valuable resources to meet public needs of relatively little importance. So too with the radio spectrum, too long and incorrectly viewed as a free good, at least by favored classes of users.

#### A Regulated Market-Type System with Prices

Now is the time to pay far more attention to the mechanics of promising middle-range options which lie between the polar extremes of a complete market and the present framework. . . .It may be that we shall always want to preserve unified management and to allocate the spectrum in line with social priorities...[But] managers ought to be able to state what a decision costs in opportunities for other uses foregone. Only with such knowledge can intelligent decisions be made...Short of a full-fledged market in spectrum, other devices can allow prices to be set. Among them are rentals and auctions.

*The Invisible Resource* is out of print, but paper copies are available at \$132.90 each through University Microfilms, Inc., Ann Arbor, MI (tel. 313-761-4700, ext. 3781)