

Special Review Memorandum

Re: Federal Frequency Management: Some Recent Suggestions.

Foreword

Should all Federal agencies be required: (a) more precisely to value the radio frequency spectrum they occupy (or want); and (b) factor those estimates into their budget and systems acquisition process? The next time the U.S. Air Force designs a new, radio-guided "smart" bomb, for example, do you want the Pentagon also to calculate that operating this weapons system is going to entail \$X worth of spectrum and add that to their budget request? Or, conversely, do you want them saying, "We'd like to be able to defend New York, but the frequencies we'd need are just too darn expensive"?

From the People Who Brought You...

This "spectrum monetization" idea's certainly not new. Economists for decades have been arguing that the radio frequency spectrum's no different from any other Government service "input," and ought to be valued accordingly.¹

The frequency manager for the U.S. Government, the Commerce Department's National Telecommunications & Information Administration (NTIA) has addressed the matter in a slightly different way. Before a Federal agency requests funding for a major, spectrum-intensive project, it's supposed to demonstrate to NTIA (and, the White House Office of Management & Budget (OMB)) that it's got the spectrum it needs to carry the project further.

Understandably Leery

But when a high-level NTIA study group recently recommended greater emphasis on "market factors," it's understandable why the Federal radio frequency user community -- and, others (like your Review's Industrial Policy Department) -- got a bit leery.

In 1991, you see, Senator Ted Stevens told Federal Communications Commission (FCC) Chairman Al Sikes he was worried radio frequency auction authority would turn the FCC into a "giant regulatory cash register." And, boy! You talk about prophetic!

Years ago, a longtime House staffer said political contributions were often key to understanding Congressional actions -- "Around here, it all comes down to money," he explained.² Well, when it comes to FCC radio frequency management

¹ They used to argue that radio frequency management ought to be simple and straightforward, like real estate -- before a number of economists learned about land use management, probably the fastest-growing regulatory system in the country. Needless to say, you really don't want radio frequency management to be like real estate. Trust us on that.

² In actuality, it's not often that blunt. Most Congressional actions are aimed at showing potential

decisions, it now "all comes down to money," too, doesn't it?

The Money Extraction Process

For example, try to figure out why the ongoing transition to digital, over-the-air television will help our old friend, the long suffering Aunt Minnie. Or, the television business, for that matter. Or, the advertisers which depend on this critical "lubricant of commerce."

Sure, the Government's put together various plausible arguments -- the most recent involve "public safety," and claim the nation's police, fire department, and emergency medical personnel, miraculously, are going to start working with each other. But the real reason for the "DTV transition" is to generate "auctionable spectrum," isn't it?

Naturally, the U.S. Treasury likes that. The House and Senate authorizing committees like that, too -- it helps them meet their Budget Committee goals. The FCC likes that. They're skimming \$89 million a year out of the auction receipts, after all, and in the past used that money for everything from new computers, to cellphones, even BlackBerrys.

But we shouldn't pretend the "Steven's Hypothesis" hasn't been fully borne out, should we? For heaven's sake, look at the FCC's recent auction of those "analog television" bands. The FCC placed "reserve prices" on the various bands - - it was like watching "Antiques Road Show," wasn't it? Rules were configured chiefly to maximize the auction revenues -- not necessarily because it was the best scientific or commercial approach to something.

The FCC operated the way any of those private equity or hedge fund operators do, didn't it? Who was that University of Chicago economist who declared there's no profit quite so satisfying as maximum profits? Well, isn't that precisely what the FCC was doing?

American Manufacturing: "Collateral Damage"

One way you can tell the FCC's fixated on maximizing the "take" for the Treasury is the indifference shown to the principal "collateral damage" which has been inflicted -- namely, the virtual destruction of America's radio frequency manufacturing business.

Look at it this way. When Alltel or Verizon Wireless or another cellphone

supporters it's not worthwhile to side with the opposition. Remember in The Godfather, where Don Corleone advises Bonaserra, the undertaker, that if he'd been the Don's "friend" for years, "Then, your enemies would be my enemies, and they would fear you." Well, watch Congress when it drags in the oil company executives, or the pharmaceutical industry, or some other group. The message being sent to these witnesses is akin to Don Corleone's, isn't it? That is, they're telling these industries (a) your friends, the Republicans, can't protect you any more, but (b) there might be some other people willing to step into the breach.

service provider goes to establish service in an area, they now have to pay through the nose for spectrum -- and, what suffers as a result? As there's a total project budget, it's the equipment vendors, of course.³

In the 1990s, FCC spectrum auctions so pinched the new entrants our three main suppliers -- Nortel, Lucent, and Motorola -- necessarily became heavily involved in vendor financing. So, the manufacturers were squeezed as far as price. They then had to grant concessionary financing -- and, ended up with lots of uncollectibles when the economy slowed.

All these manufacturing companies, in turn, tried to reduce their costs by (a) outsourcing as much as possible and (b) drastically cutting their R&D expenditures. Plants were closed, R&D facilities shuttered, and, finally, Western Electric -- once regarded as an American "flagship" -- was sold to the French. And, we'll bet no one at the FCC even noticed! They were too busy designing the next spectrum auction.

Eating the Seed Corn

The U.S. Chamber of Commerce in the early years of this decade commissioned a thorough review of the U.S. telecommunications manufacturing business -- what Senator John Danforth and others foolishly regarded as one of our "sunrise industries." Their views were completely consistent with the "Dieter Wolf hypothesis" your Review's been expounding for years: That in the overall scheme of things, there are no jobs more important than manufacturing.

Well, the American communications manufacturing business currently is a disaster zone -- and, the FCC's spectrum auction policies and practices have unwittingly done a great deal to cripple this once-important part of the American economy.

Again, too, it's not American wage rates (nor that latest canard -- the lack of Government-provided health care).⁴ Japan, Germany, Finland, and, increasingly, Korea, are hardly coolie labor jurisdictions. Foreign-based telecommunications

³ Another factor is labor, of course. The cellphone carriers resist unionization -- to save money. The carriers increasingly contract-out activities to small firms adept at employing out-of-status pick-up labor. As they say, there's only so much juice in an orange. And, if the FCC and Treasury Department are going to extract a large amount, up-front, that translates into less for others -- equipment companies and labor.

⁴ To begin with, the U.S. Government has health care programs for veterans, American Indians, the elderly, and the poor. So the claim there is no "Government health care system" is simply false. It's there, it's huge, and it's increasing. Second, the idea that the Government picks up the tab for health care in all our trading partners is also untrue. In Germany and Japan, for instance, it's a mixed system. Third, if "comprehensive health care" is so competitively critical, how come the U.S. car companies are behind. About one-third of their operations are in Canada, remember. The "health care" claim that GM and others are peddling for their own purposes may appeal to some. But they're meretricious, highly misleading claims which really ought to be suppressed.

companies didn't have to "compete" with their Finance Ministries for resources -- so the Japan, Germany, Finland, and Korea-based manufacturers had a solid home base. But the FCC and the Treasury Department gleefully savaged the American wireless equipment manufacturing business -- and, again, no one at the FCC even noticed.

Safeguarding the Industrial Base

There's no question but that spectrum auctions and "market mechanisms" have crippled the American telecommunications manufacturing business. Despite what FCC Commissioners and staff tell you, please be assured (a) good manufacturing jobs with a future which (b) can provide a "career ladder" for women and minorities and (c) sustain a vibrant R&D effort just don't come from the Tooth Fairy.

You simply cannot extract tens of billions of dollars from the American wireless communications sector and expect things to remain unchanged. Again, and to use Warren Buffett's term, there's only so much juice in the orange.

Thus, the last thing we'd want to see is these same flawed "market mechanism" ideas being imported into the Government frequency management field -- where the result might be even more job losses, more factory closures, more elimination of R&D, and greater dependence on foreign suppliers.

Public Interest Values in Addition to Money

It's true. The radio spectrum used by the FAA to provide air traffic control services has great value. The spectrum used by the Coast Guard to interdict drug smugglers has value. The channels which the U.S. Park Service uses to rescue hikers are valuable. All those channels which the Army, Navy, and Air Force use to keep the country safe are valuable. The NASA and NOAA channels are valuable. All those channels which the political leadership's personal security uses are valuable, too.

But we're not sure we want to go in the direction NTIA's expert panel intends. Do we really want to (a) place a dollar value on spectrum resources, and (b) use that number (c) to manipulate the Federal budget process, or (d) to entice the U.S. Treasury to auction off even more spectrum -- and, harm the American defense industries in the process?

Shades of the Clinton Years

During the Clinton Administration, OMB started imposing spectrum "levies" on the Defense Department -- to generate money and, of course, to please Clinton Administration supporters. Written into appropriation measures were requirements that the Defense Department transfer various megahertz of spectrum in designated bands to the FCC for auction. Requirements were so specific and detailed, it didn't

take much imagination to figure whence they arose.

Remember how Democrats chastised Vice President Cheney for caucusing with oil lobbyists, and even letting them provide "suggested language"? Well, where in the world do you think the House Appropriations Committee would learn about megahertz and all that?

Spectrum Levies Wooden-Staked

As part of the "Base Realignment and Closure" (BRAC) process, you'll recall, a real estate privatization effort of sorts was begun. There've been some transfers of Defense Department lands to enthusiastic real estate developers. But the "raid" on Federal real estate was nothing like the assault on Federal spectrum resources that the Clinton Administration pushed.

Spectrum "raiders" were much more aggressive -- and, successful. They even managed to expand on the myth there's some huge stockpile of frequencies out there, being warehoused by all these inefficient Federal agencies.

The great spectrum raids of the 1990s finally came to a halt when the Joint Chiefs of Staff issued a report on the radio frequency-intensive systems they planned to deploy in the future. The Joint Chiefs also noted that without these "smart" and other advanced technology features -- dependent on spectrum -- the Defense Department might have to look to less politically appealing strategies. Conscriptation, for instance.

Maintaining the Current System

One problem with NTIA getting oh-so-enthusiastic about more "market mechanisms" is it'll only heighten the tension which already exists between NTIA and the other departments and agencies on the Interdepartment Radio Advisory Committee (IRAC).

If those major departments and agencies get the sense their spectrum-dependent missions and responsibilities are going to be subordinated to expanding the Treasury Department's moneymaking operations, they have an obvious solution: Drop out of the process.

As the biggest single user of the spectrum, the Defense Department already has a deputy assistant secretary assigned to husband this resource. It'd take Defense about 11 minutes to have appropriate legislative language inserted into some post office renaming measure (that seems to be about the only thing Congress enacts these days). Defense Department -- or, Interior, or Transportation, or Justice Department -- secession from the current NTIA-administered radio frequency management system wouldn't be good. But it's a real possibility if the forces favoring "marketplace mechanisms" appear to be winning.

Conclusion

It's been said the FCC isn't the land of the forest or tree people, but rather

the leaf people -- and, it's certainly true the agency's potential for parochialism is sometimes almost unlimited. Thus, the FCC for the past ten years has focused very closely on spectrum auctions, and concluded that in the FCC's little niche, the experiment's been a success. The agency's been oblivious, however, to the havoc which has been wreaked on the American communications manufacturing sector.

As we said, in the mid-1980s this was regarded as one of the country's most promising fields, a true "sunrise sector." Senator Danforth and the current U.S. Trade Representative, Dr. Sue Schwab, pushed hard for special telecommunications trade measures. Today, our telecommunications manufacturing capability is essentially non-existent. Just as we've abandoned textiles and apparel, leather and rubber footwear, machine and construction tools, and an increasing array of electronics products, we've

vacated telecommunications manufacturing, too. And, we think that'll be proven, historically, to be a significant national policy mistake.

Well, we don't want to see those mistakes unwittingly transplanted into a whole new "policy garden." Or, to put it another way, there are values associated with Federal use of the radio frequency spectrum which are just as important -- if not more so -- than meeting the Treasury Department's unquenchable thirst for more and more money.

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