



It's the spectrum, stupid

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By Thomas Hazlett

The US's "700 MHz auction" recently closed with some \$19.6bn in winning bids. But the dollars flowing to the Treasury are tantamount to loose change. The real payoff is that the chunk of prime spectrum made available will fuel-inject the wireless turbines of the information economy.

Mobile US subscribers enjoy annual benefits of at least \$150bn. The 52 MHz of new bandwidth made available - to be used by AT&T, Verizon Wireless and other auction winners for high-speed internet access, mobile TV and more - will compound that consumer gain substantially. End-users will enjoy more each year from the 700 MHz licences than the government takes in once.

So, one might surmise, these 700 MHz licences are manna from political heaven. Distribute a magical resource that spurs advanced networks - and find a nice deposit in the government's chequing account. What administration would not leap at the chance?

Well, this Republican administration. The Democratic administration before it. And, alas, the two Republican administrations before that. Let's stop there for now.

Vast bandwidth, including the 700 MHz frequencies, was reserved for television broadcasting by the Federal Communications Commission in 1952. But what regulators gaveth, they tooketh. Although 82 channels were technically available for competing stations, the FCC licensing scheme left only three networks - CBS, NBC and ABC - viable.

For decades, then, the vast majority of the TV band sat idle. In 1968, the FCC suggested taking part of channels 70-82 for something called "cellular." And so they did. Bandwidth (50 MHz) was shifted to cellular and a few stations switched channels. Of course, many folks did not live to see it: cellular licences were issued 1984-1989.

Cellular proved popular. And so, in 1986, the regulator was asked to make more of the largely vacant TV bands - channels 52-69 - available. Perversely, the FCC then froze the TV band in place. The reason? The government had ambitiously decided to launch a brand new technology - "advanced television" - and was saving all the TV channels to host it.

Regulators did not have an actual product in mind; digital TV had not been yet invented. But popular fear of Japanese hegemony in consumer electronics (remember that hegemony) led policymakers to promote "advanced television" as a way to win back the lead in TV set manufacturing from Japan. That policy goal was partially achieved, as Japan was toppled - by South Korea.

On one stratagem or another, regulators have bottled up the rich, bountiful spectrum of the TV band for decades. This is senseless carnage for the high-tech economy. Over the past 22 years, the "digital TV" transition - now scheduled for midnight, Feb. 17, 2009, when over-the-air analogue broadcasting is to cease - has been the prime culprit. But for the last seven years this perpetrator had inside help.

The Bush administration, getting settled into its new digs in March 2001, began reading up and found out about the dreadfully slow-moving process to release TV airwaves for competitive use.

They quickly moved to slow it down further.

In 1997, legislation mandated that auctions of licences allocated TV band spectrum take place by June 2002. The George W. Bush White House investigated. It found the economy was bad and the stock market was worse. The wireless carriers said that they preferred not to have more competitive bandwidth released, and the government revenue forecasters advised that licence bids would be modest. The administration declared an additional multi-year auction delay a "win-win".

It is easy to lose things; here regulators saw only the receipts and the incumbent interests, and lost about 300m consumers in the crowd. Voice and data networks have suffered, and the anti-technology policy has stunted an array of wireless products.

Where lust for auction revenue has been tamed, better rules have unleashed torrents of innovation. In 1988, the FCC abandoned mandates that cellular operators deploy particular technologies. This was a "giveaway" to cellular licensees, who acquired valuable rights. But freedom drives productive solutions. A stunning example is found in wireless broadband. As of June 2007 (the latest figures available), the FCC reported some 35m high-speed mobile subscribers, up from zero three years earlier. Even without the long-delayed spectrum allocations, carriers are able to create new broadband networks that intensely share bandwidth among tens of millions of voice and data customers.

Such efficiencies are precisely what we ought to be facilitating. Dribbling out key inputs so as to hear tax collectors cackle is the government equivalent of fool's gold. It is only a "win-win" if you are forgetting to count what really matters.

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