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**Spectrum Rules for Reducing Uncertainty  
Must Reject Unduly Regulatory FCC Precedents**

by

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The Federal Communications Commission is in the process of proposing rules regarding new spectrum acquisition by wireless carriers. This includes a review of its spectrum screen used in analyzing spectrum license transfers. The matter is scheduled for a vote at the FCC's September 28 meeting.

Adoption of formal rules for how the agency analyzes the competitive effects of spectrum license acquisitions could reduce regulatory uncertainty. But new rules will be undesirable if they end up guaranteeing that wireless carriers are saddled with insurmountable regulatory roadblocks. New spectrum rules will only be desirable if they further innovation and investment in the wireless market. And those rules will do so only to the extent they encourage and enable wireless carriers to pursue new spectrum for upgrading and deploying next-generation wireless networks.

Importantly, the vibrant competition witnessed in today's wireless market counsels that the FCC should reject any outright or effective spectrum caps. The market is even more competitive than when the FCC discarded rigid caps back in 2000. According to the FCC's *Wireless Competition Report*, as of 2010, 99.2% of the population is served by two or more wireless voice providers, 97.2% is served by three or more, and 94.3% is

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served by four or more. Meanwhile, 91.9% of the population is served by two or more wireless broadband service providers, 81.7% is served by three or more, and 67.8% is served by four or more. Also, overall wireless connections skyrocketed from nearly 100 million at the end of 2000 to more than 331 million at year's end 2011. Monthly minutes of use shot up from 140 in 1993 to 696 in 2009. And average revenue per minute declined from \$0.44 in 1993 to \$0.07 in 2009, while average voice revenue per minute declined from \$0.439 in 2000 to \$0.049 in 2009.

Moreover, FCC spectrum rules must not over-emphasize market concentration concerns. Such measures fail to capture the dynamic nature of digital, data-centric, broadband-enabled wireless services. The FCC should likewise reject discriminatory treatment of spectrum bands for purposes of imposing caps or for narrowly defining product markets. To do otherwise would amount to a static approach.

Given the competition and innovation prevalent in the wireless market, actual or potential market power and consumer harm should be demonstrated before the FCC adopts further regulatory intervention regarding spectrum license acquisitions and use.

FCC spectrum rules should therefore place primacy on the potential benefits of next-generation wireless network upgrades and deployment resulting from spectrum license acquisitions by those wireless carriers most willing to undertake the necessary heavy investment.

A more predictable and certain agency process regarding spectrum license acquisition and transference will better incentivize wireless providers to engage in efficient and output-enhancing market transactions. But in order for new FCC spectrum rules to make those results attainable, they must not embody the restrictive approach witnessed in recent agency orders reviewing transfers of spectrum licenses. Such rules must recognize the competitive and innovative state of the wireless marketplace as well as the potential economic benefits that come from heavy investment in next-generation wireless services.

**Establishing a set of formal rules for how the agency analyzes the competitive effects of spectrum license acquisitions offers the benefit of reducing regulatory uncertainty.**

As a general matter, federal agencies should publish their rules of decision regarding important matters of public policy in the Code of Federal Regulations. The formal rulemaking process allows for public consideration and comment on the underlying principles at stake, the full range of issues raised by such rules, and the likely consequences of different policy pursuits on the market as a whole. In individualized proceedings, on the other hand, the fact-specific nature of the proceeding are more likely to raise narrower policy issues or to result in broader policy issues being overlooked.

More particularly, standards that can be readily ascertained better allow wireless carriers to predict likely agency responses to future proposals for acquiring spectrum licenses. With FCC rules regarding spectrum acquisition and transfers that are knowable in advance, carriers would stand in an improved position to calculate risks and pursue plans for successfully obtaining additional spectrum capacity.

A clear set of rules could render less likely the seemingly arbitrary, ad hoc rationalizing of regulatory restrictions that has characterized FCC reviews of transactions involving transfers of spectrum licenses. As we have written about on prior occasions, special pleading appeared to form the basis of important aspects of the FCC's analysis and imposition of regulatory restrictions in the [Harbinger/SkyTerra Order](#), [the FCC's staff report on AT&T/T-Mobile](#), and the [AT&T/Qualcomm Order](#). The pro-regulatory and interventionist approach taken by those orders must be avoided if new spectrum rules are to succeed in unleashing further innovation and investment in wireless services.

**At the same time, the FCC must not resurrect the spectrum caps that the agency scrapped back in 2000.**

The government-imposed duopoly established by FCC spectrum policy dating back to the early 1980s provided the crucial context for imposing hard caps on how much spectrum particular carriers could accumulate. But with the growth of wireless competition and choice in the years that followed, in 2000 the FCC eliminated caps in favor of a case-by-case approach to spectrum acquisition.

That case-by-case approach to spectrum license transfers involves the use of a so-called "spectrum screen" as an analytic tool for identifying geographic markets requiring closer examination. Both the FCC's staff order on AT&T/T-Mobile and the *AT&T/Qualcomm Order*, however, have raised questions about the extent to which the screen is subject to manipulation or becomes a mere tool for rationalizing de facto spectrum caps.

Current competition in the market provides no basis for reversing that 2000 policy decision. Nor does it provide any basis for the FCC to apply its spectrum screen in such a way as to turn them into de facto spectrum caps. Take wireless voice service coverage data, for instance. The FCC's [Wireless Competition Report](#) indicates that, as of 2010, 99.2% of the population is served by two or more wireless voice providers, 97.2% is served by three or more providers, and 94.3% is served by four or more providers. Also, as of 2010, 91.9% of the population is served by two or more wireless broadband service providers, 81.7% is served by three or more providers, and 67.8% is served by four or more providers.

**FCC rules regarding spectrum must not fixate on concentration concerns or static market figures to the exclusion of data demonstrating the market's dynamism.**

For starters, even the FCC has admitted the limitations of static analysis. In its 2000 *Biennial Review Order* that removed spectrum caps, the FCC acknowledged that "[a]lthough more concentrated markets can be less competitive and more vulnerable to anticompetitive activity than less concentrated markets, moderate to high concentration is not necessarily a threat to competition." And as its 2011 *Wireless Competition Report* states: "Shares of subscribers and measures of concentration are not synonymous with a non-competitive market or with market power."

Heavy emphasis on industry concentration indicators results in an especially short-sighted snapshot of a vibrant wireless market characterized by competition and continuing innovation.

Signs of a vibrant market include the steady rise in wireless connections, up from nearly 100 million at the end of 2000 to more than 331 million at year's end 2011. *Wireless Competition Report* data shows that monthly minutes of use shot up from 140 in 1993 to 696 in 2009. Meanwhile, average revenue per minute declined from \$0.44 in 1993 to \$0.07 in 2009, while average voice revenue per minute has declined from \$0.439 in 2000 to \$0.049 in 2009. And price competition is abundant. Different tiers of voice, text, and data bundle plans as well as pre-paid options are readily available to consumers.

The last few years alone have witnessed the transformation of wireless from a voice-centric service to a data-centric service. Sophisticated smartphones featuring specialized operating systems and applications are only a recent phenomenon and are increasingly demanded by consumers. Such developments are hardly the hallmarks of a static or ineffectively competitive market.

Concentration estimates also fail to capture competitive effects from cross-platform alternatives to wireless. Traditional landline voice and broadband Internet services with fixed mobile options are readily available to consumers. In the *Verizon/SpectrumCo Order*, the FCC described the market for Wi-Fi offloading as nascent. While Wi-Fi offloading and roaming offer wireless carriers an important means for accommodating wireless network traffic demands, it may improve the competitiveness of both wireless and wireline. Wi-Fi is an attractive option for consumers using tablets, e-readers, and other multi-media devices. According to a [comScore report](#): "[T]ablets have emerged as the fourth screen, heralding a shift to an increasingly multi-device lifestyle that is becoming the norm for many consumers we call 'digital omnivores' who engage seamlessly with multiple online touchpoints throughout a day." Consumers with multiple devices will be increasingly able to allocate their data usage among those devices and service providers that offer them the best service, convenience, and cost-effectiveness.

**The FCC should also reject any rule-based discrimination between different spectrum bands for purposes of imposing caps or for narrowly defining product markets.**

Zeroing in on particular bands of spectrum dedicated to wireless services and subjecting them to disparate regulatory treatment is characteristic of a static approach. But arguments that wireless networks using low-band spectrum can be deployed at lower costs are not, by themselves, sufficient grounds for treating low-band spectrum in a different manner. Regrettably, the *AT&T/Qualcomm Order* took this discriminatory approach to different spectrum bands, contrary to earlier precedents such the *Sprint/Clearwire Order*.

The relative merits of low-band or high-band spectrum involve technical and economic judgments and trade-off considerations that should be made by wireless carriers themselves. The FCC's wireless competition reports have acknowledged that high-band spectrum has arguably better prospects for offering high-capacity service. They have also recognized the potential benefits from carriers using a mix of low-band and high-band spectrum to successfully meet wireless network traffic demands. It is this mix of spectrum and the broader mix of inputs for wireless services – including cell towers, distributed antennas, small cells, and backhaul facilities – that should form context for a dynamic perspective regarding wireless competitive conditions.

**FCC spectrum rules should require demonstration of at least potential market power or likely consumer harm prior to any regulatory intervention.**

A competitive and innovative environment calls for a free market policy approach. In the case of wireless services, competitor coverage data, increasing consumer demand, and the innovative breakthroughs – as discussed earlier – undermine any reflexive equation of market consolidation or spectrum concentration with market power or consumer harm. Therefore, it is important that demonstrable evidence of potential market power and consumer harm be proffered before resort is made to regulatory intervention.

FCC precedents involving reviews of spectrum license transfers insist that the agency's analysis draws insights from antitrust jurisprudence. But if the FCC's prospective spectrum rules and analysis are to truly draw on those insights, the agency should *not* be focused with concentration concerns in the abstract. Instead, the FCC should engage in focused inquiry into whether proposed acquisition or transfers of spectrum licenses would create or increase market power such that it will likely lead to increases in prices, restrictions on output, reductions in quality, slowdowns in innovation, or otherwise cause concrete consumer harms. This involves an economic analysis of each geographic area where competitive concerns are raised by a particular carrier's proposed acquisition of new spectrum licenses.

## **FCC spectrum rules should take seriously the potential benefits of next-generation wireless network deployment resulting from proposed spectrum license acquisitions.**

In my prior blog post, "[Pro-Investment Spectrum Policy Requires Open Eligibility and Flexibility](#)," I explained that: "Going forward, the FCC must pursue a pro-investment policy that seeks to obtain the highest value that wireless carriers are willing to put up." A pro-investment approach gives credit to large investments that wireless carriers seeking spectrum licenses are actually prepared to make as opposed to non-existent hypothetical investments by imagined new entrants or competitors. Unfortunately, as FSF President Randolph May and I have written elsewhere, the FCC's staff report opposing AT&T/T-Mobile as well as the *AT&T/Qualcomm Order* give more credit to hypothetical scenarios than to real-life plans by carriers to acquire new spectrum and invest in network upgrades.

New FCC spectrum rules should instead take seriously the economic benefits resulting from newly-acquired spectrum being purposed for next-generation wireless services. Such services have already spawned the wireless "[App Economy](#)" that economist Michael Mandel calculates as having "generated almost \$20 billion in revenue in 2011," and as being responsible for the creation of approximately 466,000 U.S. jobs in just five years. Likewise, economic research by Robert Shapiro and Kevin Hassett indicates "every 10 percent increase in the adoption of 3G and 4G technologies could add more than 231,000 new jobs to the U.S. economy in less than a year."

### **Conclusion**

New FCC rules regarding spectrum license acquisition and use offer the promise of a more predictable and certain administrative process. Reducing regulatory uncertainty will better incentivize wireless providers to engage in efficient and output-enhancing market transactions to obtain and use spectrum licenses.

But a pro-market emphasis in new FCC spectrum rules is critical to ensuring that regulatory uncertainty is reduced and that improved efficiency is realized. The restrictive, pro-regulatory approach taken in prior FCC orders reviewing transfers of spectrum licenses must be curbed. New FCC spectrum rules must reflect the dynamism of the wireless marketplace and the potential economic benefits flowing from heavy investment in next-generation wireless networks.

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### **Further Readings**

Seth L. Cooper, "[Pro-Investment Spectrum Policy Requires Open Eligibility and Flexibility](#)," *FSF Blog* (September 19, 2012).

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Seth L. Cooper, "[Stifling the Spectrum Market: The Negative Implications of the AT&T/Qualcomm Order](#)," *Perspectives from FSF Scholars*, Vol. 7, No. 4 (January 31, 2012).

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