Insight

Extending the FCC's Spectrum Auction Authority

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Executive Summary

- The Federal Communications Commission's (FCC) authority to auction radio licenses will expire in September absent congressional action; extending the agency's authority to auction spectrum is critical to ensuring adequate access to 5G services and raising revenue to pay for new legislation.
- The FCC's auction authority would typically be extended for another 10 years, and while a 10-year blanket reauthorization may seem the most practical option, Congress is likely to find a shorter reauthorization – perhaps two years – preferable because it will give lawmakers time to develop a new spectrum pipeline for 5G services.
- Allowing Congress time to develop a spectrum pipeline would also give the Congressional Budget Office more certainty when calculating future revenue from spectrum auctions and help Congress offset spending for other projects.

Introduction

The Federal Communications Commission (FCC) conducts auctions to assign exclusive radio spectrum licenses. First authorized by Congress in 1993, spectrum auctions allow interested parties to bid for the operating rights in question, allowing the party that most values the rights to acquire them. This approach has led to significant benefits for both radio operators and Congress, which can use the proceeds of auctions to fund other, unrelated projects.

The authority granted by Congress to conduct auctions is not indefinite, however, and the FCC's current authority is set to expire in September of 2022. If the FCC loses its auction authority, it will no longer be able to effectively assign these operating rights, a significant problem as 5G networks experience a shortage of critical mid-band frequencies. While bad

enough in isolation, Congress has also not established a new spectrum pipeline – that is, congressionally identified spectrum bands for future reallocation to 5G– for the FCC after the 2.5 GHz auction concludes later this year.

While Congress would typically grant a 10-year extension of the FCC's spectrum auction authority, lawmakers may find that a short-term authorization, perhaps two years, would be better suited to the task of expanding 5G operations. This would give Congress time to establish a future spectrum pipeline to aid the FCC in this process. A shorter authorization would also give Congress more flexibility to use proceeds from specifically mandated auctions for priorities such as Next Generation 911 because the auctions would be considered new revenue for Congressional Budget Office (CBO) scoring after the reauthorization expires.

Why Auctions Matter

Congress charged the FCC with regulating radio operations in the United States in the public interest, meaning the FCC decides which entities can, and perhaps more important, cannot operate at a given time, location, and frequency. This responsibility led the agency to hold "beauty contests," or lotteries to decide which service would get the valuable license. Under this regime, radio regulation was inefficient and rife with corruption and mismanagement.

Spectrum auctions depart from this command-and-control regulation and replace it with a market-based approach. When new frequency bands become available for a particular use and multiple parties wish to acquire operating rights, these parties will bid against one another for that license. In theory, this allows those who value the operating license the most to acquire it, regardless of what the FCC may think is the optimal use of that license.

Spectrum auctions have been a major boon for both the U.S. economy and Congress, which can use the proceeds of spectrum auctions to fund different programs and initiatives. Auctions allow wireless providers to quickly obtain the necessary licenses to build out their networks. At the same time, auctions have also generated over $230 billion for the United States Treasury. If a bill needs a pay-for, spectrum auctions can be a legislator's best friend.

While the wireless industry has seen tremendous growth, the United States still needs to make more bandwidth available for 5G services and competitive offerings from rival providers. Global mobile industry body GSMA estimates the countries will need to license on average 2 GHz of upper mid-band spectrum by 2030. The FCC has taken steps toward this goal, most notably auctioning 280 MHz in the C-Band and 100 MHz in the 3.45 GHz auction, as well as somewhat encumbered 150 MHz in the 3.5 GHz band. Even when the 2.5 GHz

auction concludes, however, the United States will still be well below the 2 GHz target. If the FCC is not granted a renewal of its auction authority, the United States could fall behind and miss out on the benefits of 5G networks.

Benefits of a Short-term Reauthorization

Giving Congress Time to Develop a Spectrum Pipeline Plan

Rather than grant the FCC the traditional 10-year extension to auction spectrum, Congress should instead grant a short-term extension, perhaps two years, for the agency's auction authority to give lawmakers time to develop a spectrum pipeline plan – congressionally identified bands for future reallocation to 5G. This spectrum pipeline could then be tied to a longer, 10-year extension. With the conclusion of the 2.5 GHz auction later this year, the FCC's spectrum pipeline is essentially exhausted, and additional bandwidth will need to be reallocated away from incumbent operators. While the FCC can reallocate spectrum without congressional directives, the authority to do so is limited due to the nature of the spectrum management regime in the United States. Both the FCC and the National Telecommunications and Information Administration (NTIA) designate frequency bands for specific uses, but if the FCC wants to move incumbent operations to make available those bands for new services, it can do so only if the incumbents fall within the agency's jurisdiction. When the incumbent is a federal agency, such as the Department of Defense, the FCC must work with the NTIA to find a solution.

Like non-federal incumbents, federal agencies want to retain their operating rights within the band. Operating rights have value, and losing these rights puts constraints on the agency to conduct its operations. At the same time, federal operators occupy many of the critical mid-band frequencies that the FCC wants to allocate to 5G operations. As a result, the FCC has had many difficult disputes with federal agencies and the NTIA in recent years as the FCC attempts to allow more private operators to bid for these critical mid-frequency bands, hampering the rollout of 5G networks.

While the FCC doesn't necessarily have the authority to move federal incumbents, Congress does. For many of the FCC's recent mid-band efforts, Congress has required the federal operators to either share the frequency bands or move out entirely. For example, Congress required the FCC and the NTIA to study and ultimately make available portions of the 3.1-3.55 GHz band if feasible. This led to the 3.45-3.55 GHz auction, which generated $21.8 billion. Congress could grant a blanket extension to the FCC, but without a future pipeline from Congress, the impact will be relatively limited. In other words, even with a 10-year reauthorization, the FCC would still be unable to auction spectrum to potential operators without available spectrum to auction.

With the FFC's auction authority deadline rapidly approaching, it is unlikely Congress will be able to develop a new spectrum pipeline before this authority expires. By extending the authority for only a short duration, Congress will give itself time to develop that pipeline and, later, tie it to the typical 10-year extension.

Revenue Benefits of Short-term Reauthorization

Some may think that Congress can extend the FCC's auction authority for 10 years and simply develop a spectrum pipeline later. While technically possible, the political weight needed to reallocate federal bands will be strongest when the reauthorization is passed because of CBO scoring. When Congress needs to pay for new legislation, it can use the revenue from spectrum auctions to offset spending. When spectrum auction authority is extended, however, CBO estimates the budgetary effects of that extension over the 10-year budget window, and this estimate includes the revenue from all potential auctions during that timeframe. Upon enactment, CBO incorporates this estimate into its baseline, which is a projection of federal spending and revenue over the next decade *under current law.* If Congress wants to use the proceeds of a mandated auction for a specific purpose, it can't count on those estimated future receipts twice: The revenue from that auction is already factored into the baseline once it's been enacted and is therefore not new revenue.

With a shorter extension, auction revenue after 2024 will be new for the purposes of CBO scoring, and as a result, assuming a 2024 extension, lawmakers will be able to use the proceeds of future spectrum auctions as they see fit. For example, Congress used revenue from the AWS-3 auction to fund the nationwide public safety broadband network FirstNet. Congress could likewise schedule future auctions and use the proceeds for projects such as Next Generation 911, a specific priority for the current FCC chair. Congress could use revenue from a blanket 10-year extension as well, but the baseline estimates will generally be lower for a specific band's auction with a blanket extension because CBO factors in the chance the auction never occurs. If a spectrum pipeline specifically requires an auction, the score would be much higher due to the certainty legislation provides.

Congress should not let the FCC's auction authority expire, but reauthorization without a spectrum pipeline will hamper future efforts to reallocate mid-band frequencies for 5G operations. Therefore, the most prudent course of action is shorter extension, ensuring that the FCC can continue its working auctioning licenses while giving lawmakers time to develop a spectrum pipeline for future auctions.

Conclusion

The FCC's congressionally granted authority to auction spectrum bandwidth is set to expire

in just a few months. While lawmakers may find it expedient to simply grant a long-term blanket reauthorization, they should consider a short-term reauthorization, perhaps two years, instead. This would allow Congress to first establish a spectrum pipeline for future reallocation of 5G bandwidth, which in turn would give CBO more certainty when calculating future revenue from spectrum auctions and help Congress offset spending for other projects. Finally, this would be beneficial to the U.S. economy as it would further the rollout of 5G and the devices reliant on this technology.