

**Reply Comment of the Staff of the Bureau of Economics
of the Federal Trade Commission¹**

The staff of the Bureau of Economics of the Federal Trade Commission (FTC) appreciates this opportunity to provide its views on the competition issues raised in the Federal Communications Commission (FCC) Public Notice regarding the auction of advanced wireless services licenses.² In this public notice, the FCC has outlined a number of potential changes to the rules previously employed in wireless spectrum auctions.

This comment focuses on the rule changes most relevant to the mission and experience of the FTC, which are those relating to information disclosure during the auction and how this disclosure relates to the competitive environment in the auction. Our experience in competition issues and our understanding of the relevant economics literature leads us to believe that the balance of evidence supports the Federal Communications Commission's proposed rule changes with respect to information disclosure.

Interest and Experience of the Federal Trade Commission

The FTC is an independent administrative agency charged with maintaining competition and safeguarding the interests of consumers.³ The FTC staff often analyzes regulatory or legislative proposals that may affect competition or the efficiency of the economy. For example, the staff has submitted comments to the FCC on the section of the Telecommunications Act of 1996 that relates to the establishment of open video systems;⁴ the Prime Time Access Rule;⁵ television and radio ownership rules and

¹ This letter expresses the views of the Federal Trade Commission's Bureau of Economics. The letter does not necessarily represent the views of the Federal Trade Commission (Commission) or of any individual Commissioner. The Commission has, however, voted to authorize us to submit these comments.

² Federal Communications Commission, Auction of Advanced Wireless Services Licenses Scheduled for June 29, 2006 Comment Sought on Reserve Prices or Minimum Opening Bids and Other Procedures, AU Docket No. 06-30, 71 FED. REG. 6486 (Feb. 8, 2006) ("Public Notice").

³ Federal Trade Commission Act, 15 U.S.C. § 45.

⁴ Comments of the Staff of the Federal Trade Commission and the Antitrust Division of the Department of Justice, In the Matter of Implementation of Section 302 of the Telecommunications Act of 1996, CS Docket No. 96-46 (1996), at <http://www.ftc.gov/be/v960009.htm>.

⁵ Comments of the Staff of the Bureau of Economics of the Federal Trade Commission, In re Review of the Prime Time Access Rule, Section 73.658(k) of the Commission's Rules, MM

policies;⁶ competition, rate deregulation, and cable television service;⁷ common ownership of cable systems and national television networks;⁸ the “must carry” rules applied to cable television systems;⁹ the rules regarding the transfer of broadcast licenses;¹⁰ network ownership of financial interests and syndication rights;¹¹ spectrum allocation and standards for digital audio broadcasting;¹² the regulation of “900” telephone number services;¹³ and the development and deployment of advanced wireless services by local exchange carriers.¹⁴ Moreover, the FTC has reviewed proposed mergers involving communications and media companies.

Description of Changes

Since 1994, the FCC has been auctioning spectrum licenses using simultaneous multi-round (SMR) auctions. Over the years, the auction rules have been modified to adapt to changing markets and to try to enhance the competitiveness of the auctions. It appears that the current substantive proposed rule changes fall into two categories: (1) limitations on the specificity of information provided to bidders about the identities and actions of other bidders during the auction; and (2) allowing bidders to submit bids for

Docket No. 94-123 (1995), at <http://www.ftc.gov/be/v950003.htm>.

⁶ Reply Comments of the Staff of the Bureau of Economics of the Federal Trade Commission, In re Revision of Radio Rules and Policies, MM Docket No. 91-140 (1991) and Comments of the Staff of the Bureau of Economics of the Federal Trade Commission, In the Matter of the Commission's Regulations Governing Television Broadcasting, MM Docket No. 91-221 (1992).

⁷ Comment of the Staff of the FTC, Competition, Rate Deregulation and the Commission's Policy Relating to the Provision of Cable Television Service, MM Docket No. 89-600 (1990).

⁸ FTC joint Bureau Comments, Cable Cross Ownership, CT Docket No. 82-434 (1982).

⁹ Comment of Staff of the FTC, Carriage of Television Broadcast Signals by Cable Television Systems, MM Docket No. 90-4 (1991).

¹⁰ Federal Trade Commission joint bureau comments, Amendment of Section 73.3597 of the Commission's Rules, BC Docket No. 81-897.

¹¹ FTC joint Bureau Comments, Amendment of 47 C.F.R. 73.658(j); The Syndication and Financial Interest Rule, BC Docket No. 82-345, and Comment of the Staff of the Bureau of Economics of the Federal Trade Commission, Evaluation of the Syndication and Financial Interest Rules, MM Docket No. 90-162 (1990).

¹² Comment of Staff of the Bureau of Economics and the San Francisco Regional Office of the Federal Trade Commission, Amendment of the Commission's Rules With Regard to the Establishment and Regulation of New Digital Audio Radio Services, GEN Docket No. 90-357 (1991).

¹³ Comment of Staff of the Bureaus of Economics and Consumer Protection of the FTC, Policies and Rules Concerning Interstate 900 Telecommunications Services, CC Docket No. 91-65 (1991).

¹⁴ See Comment of the Staff of the Bureau of Economics of the Federal Trade Commission on FCC Docket No. 98-147 (Sept. 25, 1998), at <http://www.ftc.gov/be/v980030.htm>.

self-created packages of some subset of all the licenses to be sold in the auction. Because the issues surrounding package bidding are very complicated, requiring extended discussion and analysis, and are less related to the mission of the FTC, we will limit our comments to the rules regarding information disclosure.

In previous spectrum auctions, the FCC has typically revealed some of the content of bidder applications before bidding commences; most notably the licenses selected by each of the bidders. Throughout the auctions, the identity of each bidder and its bid for each license have generally been released after every bidding round.¹⁵ The FCC proposes “not to reveal until the close of the auction: (1) bidders’ license selections on their short form applications and the amount of their upfront payments; (2) the amounts of non-provisionally winning bids and the identities of bidders placing those bids; and (3) the identities of bidders making provisionally winning bids.”¹⁶ After each bidding round, the FCC would reveal the number of bidders who placed bids for each license and the amount of the current highest bid.

Likely Effects of Changes

The possibility of bidders using collusive strategies in SMR type auctions is well established in the theoretical economics literature.¹⁷ In addition, several empirical economics papers have provided strong evidence that signaling behavior consistent with collusive strategies has occurred in past FCC spectrum auctions. These actions have included signaling through digits in the bid amounts, and retaliatory bids.¹⁸ The FCC has already taken action to limit the ability of bidders to signal through their bid amounts by only allowing bidders to select among several discrete bids in each round, using a click-box procedure.¹⁹ However, bidders can still potentially send signals by bidding far in excess of the previous highest bid, termed “jump bidding.” This practice can be a way to signal a threat of a bidding war, and empirical evidence suggests this practice was observed in previous FCC spectrum auctions.²⁰ Moreover, with full information bidders can target their bids to strategically punish other bidders who deviate from implicit or explicit collusive arrangements.

The combination of evidence from the theoretical and empirical economics literature suggests that concern over the competitive environment in SMR spectrum auctions is certainly warranted. A policy of not revealing the identity of the current highest bidders would make it impossible to adopt a punishment strategy in the current

¹⁵ Public Notice at 6488.

¹⁶ *Ibid.*

¹⁷ See Milgrom (2000), Brusco and Lopomo (2002), and Engelbrecht-Wiggans and Kahn (2005), for instance.

¹⁸ Cramton and Schwartz (2000 and 2002).

¹⁹ Kwerel and Rosston (2000).

²⁰ Bajari and Fox (2005).

auction that is targeted at a bidder who deviates from a collusive strategy, and may also make the deviation more difficult to detect. These two effects are often postulated to make a collusive agreement more difficult to maintain.²¹ For instance, collusion facilitated through the types of bid signaling, retaliatory bidding, and bid jumping strategies found in the empirical literature on previous FCC auctions would not be feasible under these new rules. While it is perfectly reasonable to adjust the rules to dissuade observed suspicious behavior, it should be noted that some of the collusive strategies detailed in the theoretical literature do not depend on being able to identify bidders.²²

Also noteworthy is that the information being withheld could potentially be useful to bidders in ways that do not relate to any sort of anti-competitive behavior, as pointed out in the FCC Public Notice and numerous submitted comments. For instance, the value a bidder places on a particular license may depend (positively or negatively) on whether another particular bidder also obtains a license in that region. Under the proposed rules, the bidder would not be able to know who was winning licenses in that region until after the auction had concluded. This would be more of a concern, however, if the entire spectrum for these types of services was being auctioned off at one time. Since this auction is only for 90 MHz, the uncertainty bidders face about the possible interdependencies rests only upon the potential interdependencies on the part of the spectrum offered in this auction.

The FCC Public Notice and several comments on it²³ state that since there is a common-value aspect to these auctions, it may also be a concern that reducing the amount of information revealed throughout the auction will make it more difficult for bidders to correctly estimate the value of a license to them based upon the bids of others. This concern is mitigated to some degree, however, by the fact that the FCC would reveal the number of bidders who placed bids for each license. We also note that a theoretical paper shows that the effect of anonymity on auction revenue in an affiliated-values English auction is ambiguous.²⁴ To our knowledge, the full implications of bidder anonymity have not been worked out for SMR auctions. We agree with the FCC's position, however, that this is likely to be less of a concern now that spectrum markets are relatively mature, and bidders can use the outcomes of past auctions to help refine their estimates of the worth of licenses currently for sale.

²¹ Stigler (1964) and Klemperer (2002).

²² Brusco and Lopomo (2002).

²³ For instance, "Comments from Paul Milgrom and Gregory Rosston" and comment from the Center on the Study of Auctions, Procurements and Competition Policy (CAPCP) at Penn State University.

²⁴ See Feinberg and Tennenholtz (2004).

Conclusion

There are both advantages and disadvantages to withholding the bidder information detailed in the FCC Public Notice. We believe the balance of evidence suggests that in today's relatively mature wireless markets, the positives outweigh the negatives, and we support the FCC's proposal not to reveal information about bidder identities and actions during the auction.

Respectfully submitted,

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