

The Critical Importance of Pro-competition Measures in the Canadian 3500 MHz Auction: Reply

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I have been asked by Shaw Communications Inc., and its affiliate Freedom Mobile Inc., to comment on pro-competitive measures in the upcoming 3500 MHz spectrum auction to be undertaken in Canada by the Ministry of Innovation, Science and Economic Development (ISED). This reply comment is based both on ISED's June 2019 consultation document and the comments of others filed in August 2019 as part of this proceeding. In this reply, I continue to focus on the rationale for a set-aside and a spectrum cap in Canada's 3500 MHz auction. I continue to believe a set-aside is necessary to address competition concerns in the rollout of 5G. In addition to a set-aside, a spectrum cap can further support 5G competition and reinforce the integrity of the set-aside.

Canadian mobile communications is at a critical juncture. Operators are moving to 5G—a move that entails massive investments. Robust competition among facilities-based operators is essential for these investments and the resulting innovation to be timely and most productive.

Yet the state of competition is fragile. The Big 3—Rogers, Bell and Telus—continue to dominate with 90 percent subscriber market share and 92 percent revenue share (CRTC 2018). The regional operators, thanks to an effective competition policy in past spectrum auctions, have progressed well and have brought disruptive competition. Consumers have enjoyed improved pricing and services as a result. But the regional operators are vulnerable at this stage of substantial new investment.

A set-aside is essential

As in prior auctions, a significant set-aside for regional facilities-based operators is needed in the 3500 MHz auction. The set-aside addresses a well-recognized market failure—the incentive of the Big 3 to foreclose competition by bidding to exclude the regional operators. Such a strategy would be both effective and profitable for the Big 3, as it would lessen competition from weakened regional operators. 5G is the future of the industry. Regional operators would find competing in 5G without the 3500 MHz spectrum very challenging and might be forced to exit the Canadian market. A set-aside gives the regional operators a chance by ensuring that at least one regional operator will be successful in each region. This provides a strong incentive to participate in the auction. And the winning regional operators are then motivated to invest and develop competitive 5G services, disciplining the Big 3.

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Big 3 arguments against a set-aside are flawed

Each of the Big 3 opposes a set-aside for regional operators. This is not surprising. The set-aside prevents foreclosure of the regional operators. It leads to a more competitive market for 5G services.

The Big 3 argue that the regional operators are well-capitalized and that a set-aside is therefore not needed. This is a false argument. What matters to the potential bidders in the spectrum auction is the economics of participation. If a regional operator believes it will lose in the auction or be forced to pay an unreasonable price, then it will not participate in the auction, regardless of how attractive its balance sheet may be. Investments are made on the economics of the opportunity.

A set-aside is not costly to consumers or taxpayers

The Big 3 argue that a set-aside is costly to wireless customers as a result of the Big 3 paying too much for spectrum. This is a new twist, as incumbents have previously argued the opposite—that set-asides are not desirable because they reduce auction revenues. The causal connection between higher (or lower) spectrum prices and higher consumer prices is at best difficult to establish, as consumer prices depend on competition in the market for mobile communications. The set-aside encourages competition from regional operators and this enhanced competition reduces prices for mobile services and improves service quality.

A spectrum cap is not a substitute for a set-aside

Telus argues that a spectrum cap is just as good as a set-aside. This is not the case. Each instrument serves a distinct pro-competitive purpose.

Spectrum caps are the preferred instrument when the purpose is to prevent excessive concentration of spectrum holdings.

Set-asides are preferred when the market failure is the risk of foreclosure of smaller operators by dominant incumbents.

Preventing foreclosure is the main challenge in Canada's 3500 MHz auction and the reason a set-aside is needed. A spectrum cap can then further support competition by also preventing excessive concentration of 3500 MHz holdings.

The best pro-competitive instruments depend on the specific circumstances of the auction. The regulator must carefully tailor the pro-competitive instruments to these specifics. This is one reason why there is such a variety of pro-competitive measures across countries and auctions. In recent years, the chief concern in many countries has been excessive concentration of spectrum. In these settings we have primarily seen spectrum caps as the competition instrument. In other settings, such as the 600 MHz auctions in the US and Canada, foreclosure by dominant incumbents was the chief concern and so a set-aside was used. Canada's 3500 MHz auction is in this latter case. Here a set-aside is essential.

Strategic bidding is not aggravated by a set-aside

The Big 3 argue that a set-aside leads to gaming strategies in which set-aside eligible bidders drive up the prices of non-set-aside bidders. They point especially to Canada's AWS-1 auction in which set-aside-eligible bidders bid on the open spectrum at prices that were higher than the set-aside spectrum. There are two motivations for such bidding. The first is straightforward bidding: open lots were available at prices regional operators found attractive, so they bid on them. The second is a natural parking strategy where a bidder postpones expressing true demands until later in the auction. When applied effectively, the bidder bids where there is ample excess demand and thereby the bidder satisfies the activity rule and retains the flexibility to bid on its true demands later. For this reason, it is unclear whether the parking bidder has any impact on final prices. Presumably, the bidder leaves the parking space before final prices are reached and thus avoids being stuck where the bidder does not want to be. Most importantly, this parking strategy remains whether there is a set-aside or not. It is a feature of the activity rule in a simultaneous ascending auction. The strategy is used by both small bidders and large bidders in auctions with and without a set-aside. The chief impact is to somewhat limit price discovery, rather than distort final prices.

The Big 3 also point to the Canadian 600 MHz auction and strategies by set-aside bidders that may have increased the prices paid by the Big 3. However, the 600 MHz auction was a combinatorial clock auction with much different bidding incentives than the clock auction proposed for the 3500 MHz auction. Strategic bidding in this different context is not relevant. Moreover, from my analysis of the bidding in the 600 MHz auction it is far from clear that the set-aside distorted the bidding in a destructive way. Yes, competitors' bids did impact the prices paid, but this is an essential feature of the second-price rule in the combinatorial clock auction.

Telus is at no risk of foreclosure

Telus also argues that a spectrum cap is needed to prevent the foreclosure of Telus by Bell and Rogers in some regions. Given Telus' substantial position in the market, it is hard to believe that Bell and Rogers would think they could drive Telus out at a profitable price. In addition, Bell and Telus have a network sharing agreement. Assuming this agreement is extended to the 3500 MHz band, as seems likely given past practice, Telus would have access to the 3500 MHz spectrum through Bell's existing holdings. Telus cannot be excluded even if it fails to win 3500 MHz spectrum in the auction.

Competition in mobile communications remains an important concern in Canada

The Big 3 argue that the Canadian market is competitive so pro-competitive measures like a set-aside are no longer needed (Dippon 2019, p. 4). While it is true that set-asides in prior auctions have led to the entry of regional operators and a strengthening of competition, it does not follow that this success reduces the need for a set-aside in the 3500 MHz auction. Rather, for the continued success of the regional operators, a set-aside is needed. The fact that ISED has successfully promoted competition in the past is no reason for ISED to stop now. The state of competition remains fragile. The regional operators are vulnerable. They lack scale economies and other complementary resources that put the regional operators at a disadvantage relative to the Big 3. A set-aside makes for a more level playing field and a more competitive market.

Asymmetric spectrum holdings between regional operators and the Big 3 remain

In arguing for a spectrum cap, Rogers (2019, p. 7) states, “Significant spectrum asymmetries risk creating competitive distortions that are not temporary but, rather, will have a long-lasting impact if consumers make their decisions on initial 5G service quality.” I agree with this statement, but to me it justifies a set-aside to regional operators. It is the regional operators who are at the greatest risk of an extreme spectrum asymmetry relative to the Big 3. Absent a set-aside it is plausible that the regional operators will be foreclosed at 3500 MHz, which makes it difficult or impossible to compete in 5G, forcing them to exit. With a set-aside, at least one regional operator has an opportunity to acquire 3500 MHz spectrum in every region.

Spectrum holdings should not simply mimic current market shares

The Big 3 argue that spectrum holdings should track current market shares. This argument is false. First, it presumes that the market is mature and shares of the smaller operators should remain small, rather than increase to produce a more competitive market structure. Second, the argument ignores the reality that small facilities-based operators require at least some minimum of low-band (e.g., 600 MHz), mid-band (e.g., 3500 MHz), and high band spectrum to provide coverage and capacity to support 5G services. This is true of all operators, but the Big 3 easily satisfy these minimums. In addition, the Big 3, with high market shares, can more economically expand capacity with cell density, rather than incremental spectrum. For regional operators, greater cell density is not an economic option until market shares increase. Thus, we should expect smaller operators to require a larger share of low- and mid-band spectrum relative to their market shares than the dominant incumbents.

The Big 3 would have a huge competitive advantage if 3500 MHz spectrum holdings conformed with current market shares. The extra 3500 MHz bandwidth of the dominant incumbents would imply a speed advantage. Consumers value speed. The regional operators’ spectrum disadvantage would make it impossible for the regional operators to provide a service of comparable quality, harming their ability to compete.

The impact of 3500 MHz bandwidth on speed strengthens the incentives for foreclosure strategies. The Big 3 need not prevent the regional operators from winning any 3500 MHz spectrum, they merely need to hold them to sufficiently little that the regional operators cannot compete on speed. This will relegate the regional operators to providing a far inferior 5G product. Competition is weakened the more the Big 3 can favorably differentiate their product from that of the regional operators.

Xplornet holdings should not be attributed to regional operators

Rogers (2019, p. 13) argues that Xplornet’s retained holdings should count toward ISED’s objective of promoting regional players. That is, the set-aside in a region should be reduced by Xplornet’s holdings. But the mobile operators competing with the Big 3 do not have access to Xplornet’s holdings. The intention of ISED’s reclamation decision was to preserve spectrum for fixed use, and as such, that spectrum should not count toward a set aside in the auction. Moreover, Xplornet could sell these holdings to the regional operators, but it seems much more plausible that Xplornet would sell to the Big 3, as the Big 3 are apt to pay more for the spectrum, especially when the Big 3 consider the additional benefit of

keeping this spectrum out of the hands of the disruptive regional operators. This is one of the reasons why a cap, in addition to a set-aside, is necessary.

All should be able to bid on the open spectrum

Telus (2019, p. 17) and Rogers (2019, p. 2) argue that set-aside-eligible bidders should not be able to bid on the open spectrum. Their argument appears to be symmetry: non-set-aside bidders cannot bid on set-aside spectrum so set-aside-eligible bidders should not be able to bid on open spectrum. This makes no sense and indeed is never done. The reason is that the set-aside is not a symmetric instrument. It is intended to address a major asymmetry in the market: the power of dominant incumbents. This power gives the dominant incumbents the ability and incentive to foreclose competition from much smaller regional operators. Since there is no concern that the regional operators will foreclose the dominant incumbents by winning all the spectrum, there is no reason to prevent the regional operators from bidding on the open spectrum. Indeed, given their substantial retained holdings of 3500 MHz spectrum, as well as the spectrum sharing arrangement between Bell and Telus, it is impossible to exclude the Big 3 from the 3500 MHz band.

A spectrum cap within a set-aside should be rejected

Cogeco (2019, p. 22) argues that ISED should include a spectrum cap within the set-aside, so that at least two regional operators secure spectrum in every market. This makes no sense. Competition is apt to be best served in many markets with a strong regional operator to discipline the Big 3. In markets that can support multiple regional operators, then the clock auction allows and encourages multiple winners of the set-aside spectrum. Given the limited quantity of 3500 MHz spectrum, mandatory splitting of the set-aside would fragment the mid-band spectrum too much. The important distinction is that the Big 3 are dominant in the wireless market. None of the regional operators are dominant in the wireless market.

A spectrum cap for the entire 3500 MHz spectrum is pro-competitive as it limits excessive concentration of the 3500 MHz spectrum into the hands of dominant incumbents. By contrast, a cap within the set-side increases the opportunity for Cogeco to inefficiently win spectrum at low prices. This does not favor competition in the market overall. Competition is best served by one or more strong regional operators in the market.

Conclusion

There is nothing in the arguments of the Big 3 and their experts that alters my belief that a significant set-aside is essential in the 3500 MHz auction. The set-aside effectively addresses an important market failure: the foreclosure of the regional operators by the Big 3. Such an outcome would undermine the regional operators' ability to provide competitive 5G services. Thus, the absence of a significant set-aside is apt to destroy the competitive discipline the regional operators would otherwise bring to the future of mobile communications.

A significant set-aside supports each of ISED's goals for the auction: 1) it fosters innovation and investment, 2) it supports sustained competition, so that consumers and businesses benefit from greater choice, and 3) it facilitates deployment and timely availability of 5G services across the country, including

rural areas. A set-aside helps level the playing field between the regional operators and the Big 3, stimulating investment and innovation in 5G for the benefit of all Canadians. Moreover, an overall cap for the entire band, in addition to a set-aside, would limit excessive concentration in the hands of the dominant incumbents.

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