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Why The Spectrum Auction Worked

Johanne Lemay, National Post

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Chris Wattie, Reuters

Terence Corcoran has argued in the National Post ("Wireless Jim's failed auction," July 23) that the recently completed auction of Advanced Wireless Services (AWS) spectrum was a failed exercise. Its main accomplishment, Mr.

Corcoran argues, was imposing an effective tax

of more than \$200 on each cellphone user. Mr. Corcoran sees the auction as having been based on the "artificial creation of [spectrum] scarcity." That is to say, he believes there is plenty of spectrum available for the transmission of wireless signals, but that governments are limiting supply by acting as unnecessary gatekeepers.

If only this were the case. In fact, spectrum really is a scarce commodity.

It should be noted that Canada was hardly the first nation to award spectrum in this manner. Canada's AWS spectrum award took place almost two years after a similar exercise was conducted in the United States. This delay was in large part in response to requests from the three large incumbent providers (Rogers, Bell and Telus), which understandably were wary of a process aimed at introducing new competitors.

In any case, we should dispense with the idea that wireless spectrum would be abundant but not for government actions. This is, in part, because frequency bands are not created equal. Different bands exhibit materially different signal-propagation characteristics, which in turn dictate which services can cost-effectively be offered. Moreover, much of the existing equipment, including handsets, doesn't work with every spectrum band. You cannot use just any point on the spectrum to deploy a mobile network. Naturally, the greatest scarcity exists in the most technologically useful part of the spectrum.

Mobile data, video, TV and Internet applications are exerting exponential pressures on the amount of bandwidth consumed, in spite of technology advances that are enhancing the capacity of spectrum. Spectrum that can be used to cost-effectively deploy mobile networks is getting scarcer, and every carrier worldwide now needs more spectrum to meet the needs of subscribers.

In this context, auctions have proven to be the most efficient award process for matching carriers with spectrum. Auctions are a far more objective process than the "beauty contests" of old, whereby government officials awarded spectrum behind closed doors based on whose application best matched Ottawa's nebulous criteria.

Spectrum licenses acquired during auctions in Canada can be transferred, resold or partitioned, and thus represent tradeable assets. Operators also can choose to deploy any technology they prefer using said spectrum, as opposed to many countries that set up restrictions -- such as stipulating that only 3G or GSM networks may be deployed. Canadian spectrum rules, similar to those in the United States, are far more flexible and market-driven than those elsewhere.

The blocking of new entrants by incumbent mobile carriers is admittedly a real concern in spectrum auctions: Economically speaking, the value to an incumbent of not facing added competition will typically exceed the value of purchased spectrum space to a new entrant. This is why, in Canada's 2001

mobile-spectrum auction, which featured no spectrum set-aside for new entrants, Bell, Telus and Rogers bought up the available offerings. This precedent established the need for a mechanism to ensure that some spectrum went to new entrants -- especially given Canada's lackluster domestic market, our high prices and our lower capital investment ratios compared to other countries.

My firm's own analysis indicates that some of the key factors that have yielded new entry in other countries are spectrum set-aside for new entrants, mandated roaming, as well as no restrictions on foreign investment. If the first two elements had not been present in this month's Canadian spectrum auction, the roster of potential new bidders would have been very small, perhaps non-existent. The end result would have been a government-sponsored and consumer-supported oligopoly.

As for the high prices bid for the spectrum in this month's auction, they indicate -- based on experiences in other countries -- that new carriers will deploy their networks in earnest to start recouping their investments. The prices bid for spectrum are clearly a reflection of how lucrative these carriers expect the Canadian market to be for their companies and for their shareholders. My firm's analysis of the U. S. market demonstrates that increasing spectrum costs have led to high investment post-auction, which is necessary for bringing innovative services to consumers.

The AWS auction cannot guarantee that all new would-be licensees will deploy their networks, nor that Canadians will see lower prices. But it has set the table for improved wireless services to be delivered to consumers. In this regard, Industry Minister Jim Prentice should be very pleased: The AWS auction has achieved its objectives and, by all accounts, should be seen as a resounding success.

-Johanne Lemay is co-president of Lemay-Yates Associates Inc., a management consultancy that has been involved in many aspects of spectrum auctions.

