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Spectrum Licensing Best Practice
Colombia

Coverage commitments play a larger role in exchange for lower prices

Key lessons

- **In 2019, Colombia's MinTic awarded spectrum in the 700 MHz, 1900 MHz and 2.6 GHz bands. A key auction objective was to promote coverage in underserved areas.**
- **To incentivise coverage deployments, the 700 MHz bid process was designed to combine cash and coverage commitments to specific areas.**
- **Some challenges prevented the realisation of the full benefits. These included a complex auction format, accuracy concerning the specific areas to be covered, and bid subsidy levels not reflecting actual rollout costs.**
- **However, the underlying rationale of combining cash and coverage commitments in bids may serve as a guide for regulators in the region aiming to improve coverage and to lower the spectrum cost burden for operators.**

Background

In 2019, the Colombian Ministry for Information Technology & Communication (MinTic) awarded spectrum in the 700 MHz, 1900 MHz, and 2.6 GHz bands, following numerous previous auctions in the country. One of MinTic's key auction objectives was to promote coverage to households with the strongest need for communication services.

For the 700 MHz band, five lots (four of 2x10 MHz and one of 2x5 MHz) were auctioned sequentially. As part of their bids, operators could commit to cover a subset of 6000 areas selected by MinTic. These areas were grouped in three tiers, based on their expected coverage costs. This was intended to ensure that areas that were harder to reach increased an operator's bid value the most, as did commitments to provide quicker coverage.

The three national operators Claro, Tigo, Movistar, and WOM, an entrant operator, acquired spectrum in the auction. In the 700 MHz band, Claro acquired 2×10 MHz and committed to covering 1348 areas, WOM acquired 2×10 MHz and committed to 674 areas, and Tigo acquired 2×20 MHz and 1636 areas. Movistar did not acquire 700 MHz, and 2×5 MHz remained unsold.

In total, MinTic was successful in allocating 3658 of the available 6000 target areas during the auction.

Auction design and implementation

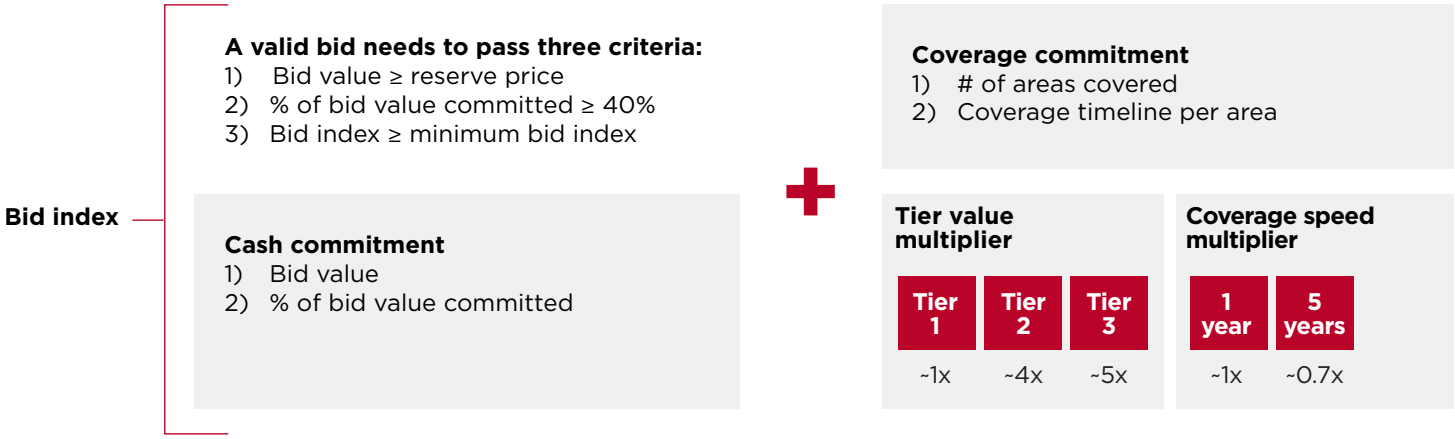
In the 700 MHz band, the submitted bids were expressed via a "bid index" formula.

The bid index value was derived from two components:

- **Cash commitment:** operators specified a total bid price and committed to a cash payment equivalent to 40-100% of that bid price.
- **Coverage commitment:** for bids with a cash commitment below 100%, operators specified a list of communities that they would cover and a timeline for covering the communities.

These two components were then combined into the final bid index value for each operator, using a formula published prior to the auction. The formula would translate the coverage commitment (number of areas and coverage timelines) into a cash-equivalent value, which was added to the cash commitment. Selecting areas from tiers with a higher coverage cost and committing to cover areas more quickly translated into a higher bid index.

The five available 700 MHz lots were awarded sequentially to the operator with the highest bid index, subject to this bid index exceeding the (unknown) threshold determined by MinTic.



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Benefits from the policy

Several components of the auction design did not promote an efficient outcome:

- The minimum bid index was not published ahead of the auction – leading to complex bidding and high uncertainty.
- The tiering of areas did not reflect actual rollout costs – such that the winners of the first lots could select the most attractive areas for a cost advantage.
- The information on the areas to be covered was limited and unreliable, significantly slowing down deployments after the auction.

Bidding process successfully combined coverage and cash commitments

Complex auction process hampered efficient outcome

Greater transparency can support improved future awards

Final impact

Due to the challenges associated with the auction design, coverage of the selected areas has been slower than initially committed. However, MinTic continued its practice of relying on market-based awards, which feature a much higher transparency than administrative awards.

The spectrum cost burden in Latin America is one of the highest in the world. By trading off cash and coverage commitments, using an approach as proposed by MinTic reduces the financial burden for operators, if the investments are directed into areas with at least some economic rationale for coverage (i.e. sparsely populated rather than unpopulated areas). By addressing the challenges outlined above – providing more transparency on reserve prices, better defining coverage areas, and allowing operators to determine the cost of covering target areas, this award could provide useful guiding principles for other regulators looking for transparent processes that promote coverage and reduce spectrum costs.

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