

STATE OF THE UNION

Sold! The Case for Auctions

Windfalls are in the offing, provided governments understand the nature of the game.

BY PAUL KLEMPERER

In March, the British government became the first to auction third-generation mobile-phone licenses. Although analysts predicted the licenses might perhaps be worth \$5 billion, the auction actually raised around seven times as much. Not surprisingly, the U.K.'s example is now being widely emulated in places as far afield as Italy and Hong Kong, both of which had originally chosen "beauty contests" (that is, administrative hearings) to allocate their licenses. In Spain, there have even been calls to have the result of their beauty contest nullified and the licenses reallocated by an auction. And Switzerland is next on the block starting Monday.

At the same time, however, a string of disappointing auction results in Holland, Austria and the Italy have raised doubts about whether auctions really are the best way to allocate radiospectrum licenses. As a professor of economics (full disclosure: I was the principal auction theorist advising the U.K. government on its auction design) I believe these doubts are misplaced.

• The chief merit of a well-designed auction is that it is the most likely method to allocate resources to those who can use them most valuably. Rather than rely on government bureaucrats to assess the merits of competing firms' business plans, an auction forces businessmen to put their money where their mouths are when they make their bids. Thus the auction extracts and uses information unavailable to the government.

• Second, even if the government did have access to good information—and the lamentably poor government estimates of the money that spectrum auctions would raise are just one illustration of how little the government knows—beauty contests can lead to the perception, if not the reality, of favoritism and corruption.

• Third, of course, a well-designed auction can raise staggering sums of money to support the public finances—the U.K. 3G auction yielded enough money to build 400 new hospitals. A beauty contest, by contrast, can give away valuable assets at a fraction of what they are worth.

• Fourth, some have argued that firms' costs in the auction will be passed through to consumers in the form of higher prices, and this would probably be at least partly true for an auction in which firms bid royalties. But the argument is mistaken for an auction in which firms make once-and-for-all lump-sum payments. Like any other firms, telecom companies will charge the prices that maximize their profits, independent of what the spectrum cost them in the past. With proper regulation, consumer prices are unlikely to be affected.

• Finally, how practical is a beauty contest? Technology guru Nicholas Negroponte has argued that winners should be chosen according to who would guarantee the lowest costs to consumers, invest the most in infrastructure, stimulate the most creativity, and so on. But how can firms guarantee consumer prices for five to 20 years in the future for products that we may not yet even be able to imagine? And

how can the government possibly decide who will be most creative?

None of these points, however, should suggest that anything that goes by the name "auction" must automatically be viewed with favor. An auction needs careful design to work well, and must be tailored to the specific country's context—auction design is a matter of the proverbial horses for courses, not one size fits all.

The Netherlands and Italian auction designs are cases in point. Both foolishly aped the U.K.'s traditional ascending-auction rules in contexts in which the U.K. system was clearly inappropriate. The crucial difference is that there were far fewer bidders in Holland and Italy. Both the Netherlands and Italian auctions would have been much more successful if bidders had been forced to make sealed "best and final" offers rather than participating in an ascending auction. This was predicable (and predicted).

In Italy, there were just six bidders for five licenses. Because one of the bidders, Blu, looked weak, the other bidders did not need to bid aggressively in the ascending auction, which always allowed them to come back and top any bid that Blu made. When Blu dropped out just a few rounds after the auction began, the result was per-capita revenues below 40% of the British and German levels.

But if the government had asked for sealed, final offers that the bidders could not revise, the other bidders could not have taken the risk of bidding so low. They would have felt forced to make serious offers in case Blu had turned out to bid more strongly (for example, Blu might just have been pretending weakness), so the government would have raised much more money. Indeed, Blu itself might perhaps have made a reason-

able offer even if—as was the case—it didn't feel able to bid up to the level required to be a winner in the ascending auction. And this possibility would also have encouraged more aggressive bidding from the others. In addition, a sealed-bid design might have attracted more entry into the Italian auction, and further improved the outcome.

It has been alleged that the Italian auction also suffered from collusion. That may or may not turn out to be true. But if it was the case, it is yet another reason why a sealed-bid auction (in conjunction with proper anti-collusion measures) would probably have worked better—an ascending design facilitates collusion by making it easier for firms to check that their collaborators are sticking to the collusive agreement.

The Netherlands also had just six bidders, one of which seemed very weak, for five licenses, with results similar to Italy's; in fact, the Netherlands per capita revenues were less than 30% of the U.K. levels.

That said, even the badly designed Netherlands and Italian auctions probably performed no worse than beauty contests which would most likely have yielded the same winners and no more revenue for the government. Very occasionally—for example, when there are too few potential bidders, or large costs of supplying necessary information to bidders—a form of structured negotiations may be better. However the general rule is that auctions treat firms fairly and transparently, and yield the greatest possible benefits for consumers and taxpayers.

Mr. Klemperer is a professor of economics at Oxford University.