

The Case Against Auctions in Hong Kong

To auction or not to auction, is that the question? Or is it Hamlet without the prince? What exactly is being auctioned when bids totaling \$33.8 billion are raised in the UK by third generation (3G) mobile telecommunications licenses? These are access licenses, the right to own *some of* the radio spectrum necessary to provide access to the world of broadband wireless Internet, but isn't there something missing? Like a business case? Like, exactly what is 3G?

3G is not like 2G, essentially a medium for voice traffic with some value-added services, such as call forwarding and short message servicing (SMS) on top. The demand for 3G is a derived demand, derived from the demand for Internet content, applications and services while on the move. No 3G license is required to provide these Internet services so how will 3G operators make their money? From access alone? Or does a license to own spectrum give 3G access providers a *sustainable* advantage to exploit the market for commerce over the Internet? Will the 3G operators have the upper hand in bargaining with the content and applications providers over revenue splits? Will the 3G operators be able to limit competitive entry into the mobile access business? Will they be able to keep out virtual mobile network operators, or at least keep them in check? Will they be able to prevent 2G operators encroaching into those Internet services that, unlike streaming video and video conferencing, require less bandwidth? Will they be able to head-off new entry at higher bandwidths when the ITU recommends the release additional spectrum?

This list could go on. For example, will satellite technology improve to the point of providing effective competition in urban areas? Will low-intensity laser technology provide an effective substitute, for example in areas such as shopping precincts where hand-off is not required? The short answer is that nobody knows. Uncertainty (note: not just risk, which can be insured against) is the name of the Internet game. What is certain is that all the conventional models for assessing the value of 3G licenses, using net present value (NPV) estimates of the future flow of revenues from the provision of access, indicate that the UK auction inflated them by 8 to 10 times. For example, according the Smith Group of consultants who advised the UK government, NPV calculations placed the value of licenses at £1.5 - £2 billion (US\$2.25 – US\$3 billion). My own calculations place the upper limit on the value of licenses in Hong Kong at around US\$1 billion. Does that mean that an auction in Hong Kong would raise US\$8 – US\$10 billion? Or should we say Hong Kong has 11 per cent of the UK population and adjust for that to arrive at an auction price of, say US\$6 billion? The UK auction price was 2.5 per cent of GDP, so perhaps the appropriate guess is closer to US\$4.5 billion in Hong Kong's case. (It is worth pointing out that these prices seem preclude any possibility of monopoly rents arising, and if this is the objective then there are more adequate ways of tackling that issue.)

Does it matter? Isn't the case for auctions precisely to let the market decide? In fact two separate arguments have been advanced for auctions in the case of 3G, for example by Paul Klemperer who helped design the UK auctions. First, economic efficiency may be enhanced. Second, they are a cost-effective way to raise funds for the national treasury. Now the second

is the more easily dismissed in the case of Hong Kong. I see no reason in the case of a poor nation why the telecommunications sector should not be double taxed (once before and once after operations have begun) if it results in more hospitals or schools, although in reality I see little evidence that such a trade-off works in practice. But Hong Kong clearly does not fall into this category. It doesn't even have a public debt, and I see no reason why it should begin sending out signals that it is planning to have one anytime soon.

The economic efficiency argument is based on the contention that spectrum will go to those companies who value it most. (If the auction is well designed this statement becomes a tautology.) But this argument cannot prove that society will value most the way those companies use the spectrum. Once spectrum is issued the alternatives are history and are therefore not available to the public to choose or to value. So the economic efficiency argument rests upon an article of faith that the value the successful bidders place upon an auction is well grounded. But unless *also* the outcome of the auction is a competitive market that will drive the failures *out* and allow new comers *in*, the issue of efficiency is itself not well grounded. So market structure is vitally important, a point that Paul Klemperer himself has stressed, but is easily overlooked others.

Auctions alone, therefore, are not sufficient. To make them work effectively a strong anti-trust enforcement is required. Hong Kong does not have the legislation or the practice to go down this road, yet without them auctions are not likely to maximize consumer welfare. The Hong Kong regulator, the Telecommunications Authority (TA), only has the powers to enforce the anti-competitive behavior clauses contained in the new Telecommunications Ordinance and the existing telecommunications licenses. The challenge is how to prevent industry consolidation, collusion, and anti-competitive partnering *prior to* the auction as well as after it. The TA has no powers to ensure the former, and, if auctions are successful in attracting large bids, it is unlikely the TA would be left with effective powers to confront the latter. This is especially true if the winners are foreign-based global players who come to the conclusion that collusive behavior is in the best interests of their shareholders, which they may well do if the market fails to develop as robustly as they hope.

Effective competition, rather than auctions, is therefore the key to success, especially in a small open economy like Hong Kong which is becoming increasingly dependent upon the tradability of its services sector. Without effective competition, auctions raise overhead costs which operators will try to pass on to consumers. Now economists rightly point out that with effective competition 3G operators can only charge for access what the market will bear, and that will be the marginal (or incremental) cost that covers a competitive rate of return on capital. Equally plausibly, business folk point out that someone has to cover these costs and sooner or later and that means the consumer, unless the business goes bust or shareholders take the hit. Can this circle be squared?

Think of the process in two stages. Stage 1: prices are set at marginal cost due to fierce competition, and this either (a) drives market growth, or (b) fails to drive the market. If (a) then

in stage 2, industry-wide auction costs can start to be recouped by pushing prices above marginal cost. At each successive stage cost-recovery prices can be strengthened, but unless the market becomes completely insensitive to prices this implies lower rates of growth in the mid and long terms. Stage 2: if (b) is the outcome in stage 1, then the weaker 3G operators are forced to cut their losses, haul back on investment, maybe withdraw from the market completely, leading to industry consolidation. The deep-pocket players could try one more round of marginal cost pricing, in which case the outcomes would be as before, either (a) growth, or (b) no growth. If the outcome is (a) the shift towards cost-recovery prices will start in stage 3, and if consolidation has taken place in stage 2 this will strengthen the tendency. But again mid and long term growth will be lower. If the outcome is (b) then even the deep-pocket players will start cutting their losses, and the whole market will suffer.

Ironically therefore, in Hong Kong, where tradable services are highly reliant upon a flourishing and competitive information infrastructure, a sustainable competitive environment and successful auctions would seem to be contradictory proposals.

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