

***Keynote Speech by Mr M H Au, Director-General of Telecommunications, Office of the Telecommunications Authority (OFTA), Hong Kong on 1 March 2007 at the Awards Ceremony of the Executive Course on Telecom Regulation Conducted by LIRNEasia at Changi Village Hotel, Singapore during 25 February – 1 March 2007***

Good evening, ladies and gentlemen,

Thank you very much for inviting me to speak at this awards ceremony.

I note that the agenda of your course is very comprehensive. I have been thinking about what value I can add in my speech at the conclusion of the course. I have decided to talk about some of the issues that the Hong Kong regulator, OFTA, has to grapple with in a mature market.

The four issues that I am going to talk about happen to be concerning some sort of balance to be struck in the decision-making of the regulator.

In Hong Kong, we have undergone various stages of market development - starting from the monopoly days, then opening up the market for competition with regulation designed to foster the market development, and then scaling back the regulation as the market competition becomes more effective. Perhaps in a less mature market, the optimum point of balance lies clearly on one side, but in a more mature market like Hong Kong, the answer of the optimum balance is not so straightforward.

The first issue is the balance between promoting competition and preserving investment incentives. We all know the principle that competition is the best vehicle to safeguard and enhance consumer interest. So as the regulator, our job is to lower market entry barriers and promote competition. The number of players should be decided by the market. If there is too much competition and prices are too low, there will be market exit. So there is no such thing as “over competition”. The market will correct itself, as long as the barriers for market entry and exit are low. Well, these are the principles. In Hong Kong when the market was still far from being effective and prices in the market were relatively high, no one would question OFTA’s moves to open up the market. However, when the market competition is intense and prices are low, the industry starts to raise issues about “over competition” whenever the regulator takes initiatives that could result in further market entry. For example, in 2004, when there was the prospect of some spectrum becoming vacant in the 800 MHz band that could potentially be used to license a fifth 3G network, questions were

raised on the impact on the incentive of the existing four 3G network operators to roll out their infrastructure. Similar concerns were expressed as the regulator proposed to make spectrum available for Broadband Wireless Access services such as WiMax. Is there a balance to be struck between promoting the interest of the consumers, by promoting competition, on the one hand and protecting the interest of the investors, by controlling the level of competition, on the other?

In my view, the interest of the consumers and the interest of the investors are not necessarily in conflict. Investment would ultimately lead to consumer benefits. It is therefore part of the regulator's job to promote investment. To address the concerns of the 3G investors, we did make some adjustments to the timing for the further market entry. But a line needs to be drawn somewhere. We have to convince the industry and the public that the promotion of competition and the facilitation of entry of new technologies will be in the ultimate interest of the consumers and the public. Undue protection of the incumbent operators cannot serve the real interest of the Hong Kong community. The incumbent operators should expect supply of new spectrum to the market to cater for the ever-increasing demand, and the additional competition as a result. What we shall do is to publish, on a rolling basis, a Spectrum Release Plan which gives advance notice of the spectrum that is planned to be released in the next three years so as to give more clarity to the potential investors as to what additional competition might be in the pipeline. We also expect our policy bureau, the equivalent of a ministry, to affirm in their Spectrum Policy Review the market-based approach in spectrum management which we as the regulator have been advocating over the past years.

In a way, balancing between promoting competition and preserving investment incentives is similar to balancing between the short-term benefits and long-term benefits of consumers. This brings me to the second issue that I would like to talk about.

Many of you would be aware that since 1995, when we opened up our domestic fixed network market, we have been implementing a "Type II interconnection" policy in Hong Kong. This is equivalent to the Unbundling of Local Loops in other countries.

Type II interconnection policy has increased competition in the market. The consumers almost immediately after market liberalization had the choice of the new entrants' services. Without the policy, the consumers would have to wait for the time when the new entrants' customer access networks reach their homes or offices.

But the Type II interconnection policy had also provided the new entrants with a low-cost, low-risk approach to reach their customers. Undoubtedly investment in self-built customer access networks would involve higher risk due to potential technology obsolescence or under-utilization. Therefore the continued availability of the Type II interconnection policy may undermine the investment incentive of the new operators in investing in their own customer access networks. Reliance on the copper-based local loops would arguably also give little scope of product differentiation as the new operators' services would be limited by the technical capabilities of the copper local loops.

Withdrawing the Type II interconnection could however harm competition in the short term if the customer access networks of the new operators could not reach the customers in time to replace the access through Type II interconnection.

Thus OFTA was faced with striking the balance between the short-term interest and the long-term interest of the consumers. The short-term interest is the benefits brought about by more choice and competition in the market as the new entrants were able to reach the consumers immediately through Type II interconnection. The long-term interest is the consumer benefits through facilities-based competition and the potential innovation and product differentiation brought about by multiple customer access networks.

At the time when a decision had to be made on the future of the Type II interconnection in 2004, two new entrants in particular had already rolled out their customer access networks, based on the fibre-to-the-building technology, covering 53% of the households in Hong Kong.

The decision was to terminate Type II interconnection to a building connected by a self-built alternative customer access network of the new entrants three years after the building has been so connected. By the end of June 2008, the Type II interconnection policy would be terminated except to locations where the copper local loops of the incumbent are still regarded as an "essential facility".

The reasoning behind this is that in areas where it is commercially viable *and* technically feasible for self-built alternative customer access networks to be constructed by the new entrants, Type II interconnection could undermine investment incentive when Type II interconnection is viewed as a lower-cost or lower-risk

approach than self-built customer access networks. The connection of a building by at least one self-built customer access network is evidence that it is commercially viable *and* technically feasible for self-built alternative customer access networks to be constructed by the new entrants to this building.

In areas where it is either commercially not viable *or* technically not feasible for self-built alternative customer access networks to be constructed by the new entrants, Type II interconnection policy would not have undermined investment, because it would not happen anyway, but would enhance consumer interest through more competition and choice. Duplication of infrastructure in these areas may be a sub-optimal solution as it would represent inefficient investment. In Hong Kong, we estimated that such areas cover less than 20% of the households because of the cosmopolitan environment of our city. Development of new technologies, such as wireless access, may well shrink such areas. The retention of the Type II interconnection policy for locations where the copper local loops of the incumbent are still regarded as an “essential facility” would provide safeguard to competition in these areas.

Since the decision on the withdrawal of Type II interconnection, we have perceived no diminution in the level of competition in the market. New entrants continued to roll out their customer access networks. The percentage of households that has been connected by at least one self-built customer access network of the new entrants has increased to 76% by October 2006. We have also witnessed the emergence of some innovative “triple-play” services on the broadband connections in the market.

The third issue is the balance between *ex ante* regulation and *ex post* regulation – how much regulation should be *ex ante* and how much regulation should be *ex post*. We all know the principle that regulation should be used to address market failure. When the market is effective, *ex ante* regulation should be terminated and *ex post* competition law should be relied upon to safeguard competition in the market. Based on this principle, we have terminated the *ex ante* regulation at the retail-level on the tariffs of the incumbent fixed network operator from January 2005, but I am going to deal with other *ex ante* regulation this evening.

In the interconnection between fixed networks, at the initial stages of market liberalization, we had to apply a considerable level *ex ante* regulation to ensure that the networks of the new operators can be interconnected to the networks of the incumbent at reasonable costs. Thus we have imposed as a licence obligation for the

networks to interconnect, that is, the so-called “any-to-any” connectivity obligation, issued regulatory guidance on the principles for interconnection and the methodology for determining interconnection charges and had carried out a few determinations of the actual charges when the operators involved failed to reach commercial agreement on interconnection. However in recent years, as the competing domestic fixed networks have grown in size, the need for interconnection has become mutual. The bargaining powers of the network operators become more balanced. It had not been necessary for the regulator to intervene for many years. The question is can *ex ante* regulation on interconnection be fully withdrawn?

One option is of course to leave everything *ex post* – the regulator intervenes only if the operators fail to interconnect. In my view, although we are at the stage of withdrawing some *ex ante* regulation, we are not yet at the stage when *ex ante* regulation can be completely withdrawn for interconnection. Let’s take the example of “any-to-any” connectivity obligation. It is an obligation on network operators to interconnect with other networks and services so that any user connected to one network can call, or be called by, any other user who may, or may not, be connected to the same network in the market. Apart from the obstruction to competition that will be caused by breakdown of interconnection, the “any-to-any” connectivity requirement is also a desirable public policy objective. If this requirement were not achieved, there would be confusion to the public and significant harm to Hong Kong’s position as an international financial and trading hub. If we should leave it entirely to *ex post* regulation and expect the market to achieve this, we could not guarantee that such connectivity can always be maintained. In a competitive market, in the absence of regulation, each operator should have the right to deal or not to deal with other operators in the market. If network operators fail to reach commercial agreement, or commercial negotiations are still in progress, in a commercial world without regulation, interconnection may not happen. Such breakdown in interconnection, however short, would be socially unacceptable. Therefore continuity of interconnection is an objective that we have to secure through the retention of “any-to-any” connectivity obligation as an *ex ante* regulation. For other interconnection terms, we can consider to apply a more light-handed approach which is similar to *ex post*. For example, we can consider the withdrawal of regulatory guidance on the interconnection terms, and intervene only if the parties fail to reach commercial agreement after a reasonable period of negotiations.

There are many other examples of *ex ante* regulation that we have to retain, such as the rules of number portability. Without number portability, we should expect

barriers to effective working of the market and therefore this is an area where we cannot leave entirely to the market and *ex post* regulation.

I think the test should be – would the market be expected to work *without* the regulation? If the market should work properly without the regulation, there is no need for the regulation. The regulator should anticipate and pre-empt market failure. That the market is working properly only because of the *ex ante* regulation does not mean that the *ex ante* regulation can be dispensed with.

The fourth and final issue that I would like to talk about is the balance between facilities-based and services-based competition – should the regulator still facilitate services-based competition when facilities-based competition has emerged? Facilities-based competition is the ideal of every regulator because such competition can provide innovation and product differentiation and is sustainable without much need for regulatory intervention.

In Hong Kong, we are in a better position to develop facilities-based competition because of our building and population densities. Multiple networks have been rolled out. The ADSL-enabled local loops of the incumbent fixed network operator cover some 98% of the households. The cable modem service of the cable TV operator covers over 90% of the households. 76% of households are connected by at least one fibre-based customer access networks of the new entrants. In fact, 51% are connected by at least two such networks. In addition to that, four 3G networks with territory-wide coverage are in operation. We have therefore been successful in developing a certain level of facilities-based competition in Hong Kong. The question is whether services-based operators have any more roles to play in the market.

In my view, the regulator should facilitate the entry of the services-based operators even though there is a certain degree of facilities-based competition. Inevitably there can only be a limited number of facilities-based networks in the market. If users are confined to services and applications provided by the facilities-based operators, the choice would be limited. The architecture of the Next Generation Networks (NGN) is precisely to enable the users to have access to services which are not necessarily provided by the facilities-based operators. Therefore my view is that services-based operators will continue to have an important role to play in the market. The question is the extent to which regulation should be employed to ensure that the services-based operators can have access to the networks. The regulators have so

far not intervened in the internet and services-based operators thrive on the internet. It is important that the open network tradition of the internet is preserved in the NGN world. Regulatory intervention may be justified if the market alone cannot bring about open network. The success or failure of the services-based operators should be decided by the market, but the services-based operators should be given a chance to enter the market. If they were denied the opportunity to enter the market, how can their success or failure be judged by the market?

Ladies and gentlemen, in applying the regulatory principles, the experience of the Hong Kong regulator is that there are various balances that the regulator needs to carefully strike – the balance between promotion of competition and the preservation of incentive to investment, the balance between the short-term interest and the long-term interest of consumers, the balance between *ex ante* and *ex post* regulation, the balance between facilities-based competition and services-based competition, and so on. Finding the optimal balance is an art. The regulator has to exercise skills in managing the reaction from the stakeholders. Decisions would be made only after consultation with the parties affected. The regulator has to be fair and have the benefits of the consumers and the public in mind. The regulator has to be transparent and be forthcoming to explain the reasoning to the public. Communication with the media is particularly important. The regulator has to maintain consistency in its decisions. Of course the regulator's decisions would be more readily defended if they are consistent with sound economic principles and best practices. I hope that what I have talked about this evening would be of some use to you when you return to your countries to tackle the issues that you are tackling or will tackle in the future.

Thank you very much.