



AFP

Hong Kong China

Some valuable pointers

■ *Hong Kong China could act as a test laboratory for the rest of the world for high density, high penetration broadband roll-out.*

Hong Kong is one of two Special Administrative Regions of China. Its government's Census and Statistics Department puts the population at 7.1 million, in an area of 1104 square kilometres (covering Hong Kong Island, Kowloon, and the New Territories and Islands). This makes Hong Kong China one of the most densely populated areas of the world. Under the principle of "one country, two systems" Hong Kong Special Administrative Region has a different political system from mainland China, with an independent judiciary that functions under the framework of common law.

As one of the world's leading international financial centres, Hong Kong has a service economy characterized by low taxation and free trade. The lack of land area coupled with a large

population has led to a demand for high density building. The city is noted for its modern architecture and has become the world's "most vertical" city.

Hong Kong China also has a leading telecommunications economy, with world-class infrastructure. Digitized since 1995, the Special Administrative Region has been wired extensively with optical fibre cables. The vast majority of households are covered by the extensive broadband network. Ha Yung Kuen, Deputy Director-General of the Office of the Telecommunications Authority (OFTA) notes that the roll-out has been characterized by the use of practically every type of technology. Hong Kong is naturally a key regional telecommunications hub and as such is the landing point for a significant number of strategically important submarine cables. Television is a substantial market in the economy, with an estimated customer base in 2011 of over 2.2 million households (99 per cent).

Policy settings

General guiding principles for government are simple: “big market, small government” and “market leads, government facilitates”. The role of government is to provide a facilitating environment and to intervene only where there are obvious imperfections in market mechanisms.

This macro-economic policy applies to the telecommunications sector, which has been liberalized since the 1990s, resulting in one of the most competitive markets in the world. The government has not provided any direct investment or any forms of subsidy for network construction or for providing telecommunication services in Hong Kong. But there has been no shortfall either in consumer demand or in private-sector investment.

Even during the 2009 global financial crisis, this approach prevailed, despite the soul searching questions at the time of whether Hong Kong China should depart from its proven pro-market policy, whether regulatory holidays or financial incentives should be offered to the industry, and whether public funding should be injected to stimulate investment in telecommunications infrastructure.

The role of regulation

The telecommunications regulator, OFTA, is central to the implementation of government policy. It has responsibility for the regulation of competition in telecommunications, licensing, technical regulation, spectrum, and consumer matters. It is thus a totally converged and integrated regulator.

In October 2010, at an International Regulators Forum in Barcelona, the Director-General of OFTA, Eliza Lee, laid out some examples of how her organization dealt with the trying times of the global financial crisis. Ms Lee recalled that at the height of the financial collapse, in January 2009, OFTA proceeded with a spectrum auction to ensure the timely introduction of Long-Term Evolution (LTE), WiMAX and other broadband technologies in Hong Kong China. The reserve price was kept unaltered and the auction left to market forces. The auction was a success. A total

of 90 MHz in the 2.5 GHz band was acquired by three successful bidders at a price of USD 197 million.

Private investment continued, and a new LTE technology centre was set up along with a state-of-the-art laboratory. More jobs were created. One of the successful bidders announced deployment of the world’s first dual-band network in Hong Kong China in early 2011.

The regulatory action paved the way for new business opportunities for developers of applications, content providers and on-line advertisers. This will, in turn, expand the industry and further spur the telecommunications market.

With hindsight, it is clear that an integrated and converged regulator was able to smoothly harmonize the technology pathways to the broadband future. It seems that, with a sufficiently high degree of facilities-based competition, the government does not need to provide funds to finance the development of broadband infrastructure.

During the financial crisis, however, the outcome was uncertain, and OFTA raised this matter with industry. The majority of industry representatives supported the continuation of a pro-market policy. The consensus was that investment and construction of telecommunication networks should continue to be based on the business plans and commercial decisions of the private sector. The view was that this would confer the greatest degree of the flexibility required for business operations.

That said, OFTA has contributed a number of facilitating measures to assist the continuous roll-out of broadband networks by industry. One is the introduction of a registration scheme for buildings connected by fibre-to-the-home (FTTH) or fibre-to-the-building (FTTB) in order to support public awareness of fibre-based facilities. Another is a consultancy study into streamlining of the landing of submarine cable systems in Hong Kong China. OFTA has also facilitated the deployment of mobile broadband services through the timely release of spectrum, and has allowed mobile operators to use hill-top sites for base stations and backhaul.



There has been sustained private investment and impressive customer take-up of broadband services. For example, in Hong Kong China as at October 2010, there were seven operators providing fixed-broadband services using various technologies at speeds up to 1 Gbit/s.

Also, by January 2011, a total of 2.1 million subscribers were using broadband services, representing a household penetration rate of 83 per cent. About 86 per cent of households are served by at least two self-built networks, and close to 70 per cent are served by three. According to a survey published by the Fibre to the Home Council in February 2010, Hong Kong China ranked third among all the economies that have deployed FTTH or FTTB, with household penetration of around 33 per cent.

Deregulation of fixed-mobile interconnection charges in April 2009 by OFTA aimed to facilitate cross-platform competition in the era of fixed-mobile convergence. OFTA's ability to act in this area represents another advantage of a converged and integrated regulator that is attuned to the market and does not impose any technology choices.

Fixed operators used to impose an interconnection charge on mobile operators, but OFTA considered this practice to be dubious and took steps to put a stop to it. Initially the fixed-network

operators cried foul and sought a long transition period to minimize the impact of the loss of payments. OFTA nevertheless proceeded with its approach and now, except for a single case of dispute between the incumbent fixed operator and a mobile operator, most fixed and mobile operators have been able to reach some form of understanding on interconnection charges, based on the "bill and keep" model.

Pro-market approach

With a high density population in an urbanized environment and high penetration rates, Hong Kong China has opted to remain faithful to pro-market mechanisms, facilities-based competition, technology neutrality, light regulation, and a dependence on totally private investment in telecommunications. As a result, the Special Administrative Region has been able to maintain consistency, continuity and certainty in its policies for the telecommunications sector and in encouraging innovation.

While these circumstances are not reflected in most economies, Hong Kong China nevertheless gives us some understanding of what the future holds as penetration of broadband increases and urban population density grows.