

Infrastructure Competition and Investment: Experience of Hong Kong, China

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Policies

- Telecommunications infrastructure and services operated by the private sector
- Role of Government is to create and maintain environment for investors to compete fairly and obtain reasonable return
- Rules enforced by Telecommunications Authority (TA), an independent regulator, supported by OFTA
- No foreign ownership restriction

Policies (2)

- Pro-competition and pro-consumers policies
- Light handed regulation
 - regulation : surrogate to competition only
 - maximum reliance on market forces to determine number of players (except where physical constraints exist), prices, technology and quality standard
- Fair and transparent regulatory framework based on law

Regulatory Principles

- Market driven approach is adopted, intervene only if the market fails to deliver public interest
- Intervention is proportionate and minimum with necessary remedies
- The case for intervention is established upon the facts and circumstances
- Technology neutrality with no discrimination by technology or class of operators
- Regulation should not hinder new market development

Role of TA/OFTA

- Enforcing fair competition rules
- Determining interconnection terms
- Determining terms for sharing of essential facilities
- Resolving inter-operator disputes
- Dealing with land access problems
- Managing radio spectrum and telecommunication numbers

Promoting Fair Competition

- To identify and stop anti-competitive conduct and abuse of dominant position
- To identify and stop misleading or deceptive conduct
- To maintain level of competition by regulating mergers and acquisitions in the telecommunications sector
- To enforce fair competition rules under licence conditions
- Appeal may be made to the Telecommunications (Competition Provisions) Appeal Board

Infrastructure Investment

- Investment is market driven and undertaken by the private sector - no government subsidy
- Investment is driven by expected return
- Regulator's role is to create a favourable environment for such investment
 - Lowering entry barriers
 - Maintaining level playing field
 - Minimizing regulatory risk (by maintaining a transparent and predictable regulatory environment)

Facilitation of Infrastructure Rollout

- Liaised with the Building Authority to – amend code of practice for architects to include adequate equipment rooms and ducting facilities in new buildings – exclude areas for such facilities from “plot ratio” calculations (providing commercial incentives for including such facilities)
- Coordinating road opening works of operators to
 - avoid unnecessary environmental disruptions
 - facilitate approval for road opening permits

Facilitation of Infrastructure Rollout (2)

- Statutory right of access by fixed network operators to “common parts” of buildings to install in-building wiring systems to serve residents/ occupiers of the buildings
- Mediating disputes between operators and building owners concerning access into buildings
- Conducting educational campaigns to educate the public about the benefit of allowing network operators to gain access into buildings for network rollout
- Sharing of “bottleneck” facilities in buildings
- Open up Highways furniture (lamp posts, flyovers etc) to operators for installing base stations/antennas

Latest Status of Telecom Market – Fixed Services (1)

Broadband coverage:

- Incumbent (ADSL) 98% households
- Cable modem service ~89% households
- Other operators 76% households with choice of more than one network
- Household Broadband Speed from 1.5 Mbps/640kbps asymmetric to 100/100 Mbps symmetric

Latest Status of Telecom Market – Fixed Services (2)

- Broadband prices very competitive
- Example: US \$ 38 per month for 100/100 Mbps symmetric service
- Broadband penetration
 - Penetration by households 75%
 - Penetration by population 27%
 - IPTV household penetration 41%

Latest Status of Telecom Market – Mobile Services

- 3G networks
- 4 in operation (W-CDMA)
- 17% of all mobile customers are 3G users
- W-CDMA being upgraded to HSDPA
- 2G/2.5G/2.75G networks
- 5 operators (4 of which are 3G operators)
- Mobile penetration 140%

Latest Status of Telecom Market – Public WiFi Services

- 5,000 Wi-Fi hotspots at around 3000 locations in the territory
- At the forefront of the world for public WiFi service
- Fully funded by the commercial sector without government subsidy

Experience Sharing: Type II Interconnection

- i.e. Unbundling of local loops started in 1995
- Advantages: consumers to have more choice and lower prices due to competition
- Disadvantages: incumbent and new entrants have lack of incentive to invest in their own infrastructure. Over reliance on incumbent's copper-based local loop network leads to lack of innovation

Experience Sharing: Type II Interconnection (2)

- A review was conducted in 2004. Due to extent of competition in the market, market share of new entrants, network coverage of new entrants and emergence of bypassing technologies, decisions were taken to
 - terminate asymmetric tariff regulation on incumbent from January 2005
 - set timetable for phasing out mandatory Type II interconnection at telephone exchanges of incumbent by end-June 2008

Experience Sharing: Type II Interconnection (3)

- Mandatory Type II interconnection at telephone exchanges of incumbent
 - is to be terminated as from end-June 2008, except locations where the copper-based local loops of incumbent are still “essential facilities”
 - for buildings already connected by alternative customer access buildings, to be terminated 3 years after buildings have been so connected
- Type II interconnection can continue after end-June 2008 through commercial agreements

Experience Sharing:

Type II Interconnection (4)

- Type II interconnection at building level: there may still “Bottleneck” inside buildings such as space for cable ducting and building managers/residents may object to internal finishing being disturbed
- Regulatory power to intervene is maintained and commercial agreement between operators is preferred
- Regulator’s determination is a last resort
- So far regulatory intervention not imposed but mediation is offered

Experience Sharing: Type II Interconnection (5)

- Encourage Investment :
 - Clear signal to operators to invest in high bandwidth and advanced telecommunications network
- Promote Market Competition and Enhance Consumer Choice :
 - In the short run, withdrawal of interconnection in buildings with at least two self-built customer access networks will ensure competition and consumers would have a choice. In the long run, operators and other service providers will compete to provide consumers with quality and innovative telecommunications services delivered by high bandwidth and advanced telecommunications network.
- Industry is generally supportive
- No sign of lessening intensity of competition



Thank You