

Telecommunications Competition Regulation in Hong Kong

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Abstract: Competition regulation in the telecommunications industry is interesting because its contribution to the evolution from a monopolised economy to a vibrant and competitive arena has been instrumental to the development of Hong Kong as a global centre for commerce. It is also interesting of particular interest as the combined effects of competition and technological change have begun to affect enforcement practices by the regulator. This paper will review the competitive landscape in the telecom market as well as the regulations that promote and sustain competition in Hong Kong. Along the way, the evolution of regulatory practice will be studied and future trends will be explored.

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1 Introduction

1.1 The Telecommunications Industry and Competition Generally

Hong Kong is the fourth largest banking and finance centre in the world.¹ Its coveted position as the regional centre for tertiary and quaternary activities, for example, financial and legal services and corporate headquarters, has been achieved through its unique mix of geographical advantages, regulatory framework, human capital, and not least, the availability of high-quality telecommunications services at competitive prices. The advanced state of telecommunications led to the appointment of Hong Kong as the hosting city for the International Telecommunications Union in 2006. Without doubt, Hong Kong's telecommunication industry has been essential to the growth of Hong Kong as a regional hub.² It is imperative to continually improve the vibrant telecoms sector to ensure the City's sustainable growth in future years.

Competition has been instrumental to the rapid development of the local telecom market. Customers have the freedom to choose amongst similar telecom services, thus encouraging competing firms to improve efficiency, reduce prices, enhance innovation and improve service quality.³ Furthermore, the introduction of more firms into the industry has increased employment demand though not without service overlapping.

The telecommunications sector did not start out as a competitive arena and it was only until 1995 when competitors just began to enter the market. This paper will review the competitive landscape in the telecom market as well as regulations that promote and sustain competition in Hong Kong. Along the way, the evolution of regulation practice will be studied and future trends will be explored.

1.2 Background Historical Development

1.2.1 Fixed Line Telephony

Hong Kong's telecommunication sector has undergone change at a revolutionary pace since Hong Kong Telecom (HKT) (as it then was) held the 70-year exclusive

¹ Hong Kong Trade Development Council website

² According to the Hong Kong Trade Development Council, the telecommunications sector was directly responsible for 2% of Hong Kong's GDP in 2004 – <http://www.tdctrade.com/main/si/sptelc.htm> accessed on 21 January 2007.

³ "What's the Answer to Competition?" Morgan Stanley Equity Research, 31 March 2001

franchise in the local fixed telecommunications network services market. In June 1995, following the expiry of that license, the Hong Kong Government granted three new licenses, to Hutchison Communications (now Hutchison Global Communications Ltd.), New T&T Hong Kong (now Wharf T&T Ltd.) and New World Telephone (now New World Telecom) to offer services in competition with the incumbent.

The push to liberalise the telecommunications sector was initiated primarily by the expiration of HKT's monopoly franchise in 1995. At the time, competition regulation was not a stated objective of the Government but it was officially recognised that "unimpeded access through advanced, high-speed and quality telecommunications networks to the vast world of information is vital to the development of e-commerce and e-life in this information age and effective competition among network operators secure lasting benefits for consumers."⁴ "In raw political terms, the lack of competitiveness in the sector impacted Hong Kong's regional role."⁵ Widening the choice of telecom service providers was heralded as a harbinger of major benefits to consumers.

To encourage the development of and investment in fixed telecommunications networks, the Government announced on 5 May 1999 that it would not issue any more local FTNS licenses until 1 January 2003 (the moratorium). In return, the three new entrants undertook to offer 50% of households a choice of a competing network operator to PCCW-HKT by the end of 2002. These commitments were guaranteed by the provision of performance bonds of HK\$50 million per operator. The Telecommunications Authority would then have the power to direct remedial action when any operator failed to reach any interim milestones.

In January 2000, Hong Kong Cable Television Ltd. (HKCTV) was granted a license to provide telecommunications services over its fibre network, forming the fifth wireline-based FTNS operator⁶. However, to date, HKCTV has yet to roll out a viable service.⁷

Adding to the fray, five wireless local fixed network operators were licensed in the first quarter of 2000 to operate non-wireline based FTNS networks based on Local Multipoint Distribution Systems (LMDS) technology.

⁴ Information Paper for District Councils, OFTA, 2002

⁵ M. Reede, Hong Kong's Regulatory Dichotomy, 31 March 2003

⁶ This license was granted under an exemption to the 1999 moratorium.

⁷ See: *Telecommunications Regulation in Hong Kong*, P. Xavier and Y. Xu, 2002 – The major reason, according to some analysts, is that the technology used by HKCTV is not interoperable with other telephone systems. The company has reportedly been testing Internet Protocol-based systems with a view to introducing a commercial service

As of the start of 2007, there were 10 wireline-based FTNS operators, 1 wireless-based FTNS operator and 249 external telecommunications services operators.

Operator	PCCW	Wharf T&T	HGC	New World	City Telecom	Others
Market Share	88.65%	5.08%	3.81%	1.27%	0.53%	0.65%

Table 1 – Fixed-line operator market share (2002)⁸

Since 2002, PCCW has rapidly lost market share to competitors. In 2004, its market share had dropped to 70.4% with Wharf New T&T doubling to over 11 percent.⁹ The most recent estimates puts PCCW at 68% and Wharf T&T at 13 percent.¹⁰ The interesting move from monopoly to liberalisation presents a fertile ground for exploring competition in the fixed-line telecommunications market in Hong Kong.

1.2.2 Mobile Services

Unlike fixed telecommunications services, the Government followed a pro-competition policy for mobile services right from the start. By 1987, three licenses for analogue mobile services had already been issued. Smartone obtained the fourth license in 1992 and immediately began offering digital GSM services. In 1996, OFTA granted a further six licenses for PCS services (GSM at 1800MHz), sparking another round of fierce competition. Following a period of industry consolidation, the number of mobile operators came to six. In 2001, four 3G licenses were issued.

Operator	CSL	Hutchison	SmarTone	SUNDAY	New World	PEOPLES
Number of Subscribers	1,300,000	2,195,000	1,033,000	684,000	1,300,000	1,130,000
Market Share	17%	29%	13%	9%	17%	15%
Technology	GSM DAMP PCS WCDMA	GSM CDMA PCS WCDMA	GSM PCS WCDMA	PCS WCDMA	PCS	PCS

Table 2 – Mobile operator market share, ex-3G (early 2005)¹¹

Table 2 above shows that no single mobile operator is able to dominate the market completely. Since the mobile sector has been highly competitive from the start, the paper will not focus on mobile telephony.

⁸ Source: CIT PriMetrica's Datafile of Asia-Pacific Telecommunications from http://www.telegeography.com/cu/article.php?article_id=1317 accessed on 19 January 2007

⁹ Later statistics from the Telecommunications Research Project data files, HKU - <http://www.trp.hku.hk/datafile/hongkong.xls> accessed on 19 January 2007

¹⁰ From PCCW Ltd. annual report 2005

¹¹ Source: The Regulatory Environment for Future Mobile Multimedia Services, ITU, 2006

1.3 Barriers to Effective Competition

In the highly specialised field of telecommunications, it is useful for one to understand the advantages that an incumbent holds before scrutinising the regulations that enable effective competition. An incumbent's advantages generally come under three headings:

1.3.1 Dominance Advantages

The dominant player in the industry, i.e. PCCW in fixed line telecommunications, is a large organization with ample resources. In 2005, its total operational turnover was HKD 22,499 million, had a fixed line market share of 68 percent, and employed over 14,000 staff.¹² This dwarves the results of the second-biggest fixed line telecommunications service provider (Wharf T&T) with a turnover of HKD 1,428 million and market share of 13 percent.¹³ The vast pool of resources that PCCW can devote to research and development, network infrastructure growth and other investments make it difficult for new entrants to compete. PCCW's substantial financial resources can also help it resist or instigate protracted price wars. From a marketing perspective, PCCW has been in existence many more years compared to new entrants allowing it to enjoy unparalleled customer awareness and brand recognition.

1.3.2 Control Advantages

Control advantages arise from the incumbent's ownership of information that other companies need to compete on equal footing. Prior to the 1995 liberalisation, the primary fixed-line domestic telecommunications network was owned and operated by HKT (now PCCW), hence its superior knowledge of the network and database of customer details compared to the new entrants. The newcomers would need to have that information if they were to compete on equal footing. In addition, without any regulations, PCCW could openly argue that the telephone numbers they assigned to their customers were intellectual property that no one else can use. If that view held, when customers wanted to change service operators, they would have to face the disincentive of changing telephone numbers, inhibiting the introduction of competition.

¹² See 2005 Annual Report of PCCW Ltd.

¹³ See 2005 Annual Report of Wharf Holdings Ltd.

1.3.3 Structural Advantages

A physical telecommunications network needs both financial capital and space to grow. Having had a monopoly to develop a physical network before 1995, PCCW has cultivated an extensive network infrastructure and intimate knowledge of that network. When PCCW's stranglehold license on the industry expired, new entrants found it expensive to expand their network coverage to compete with that of PCCW's. Aside from financial costs, new entrants found it difficult to extend their network coverage into buildings because the wiring in those buildings were simply too congested. Situations also arose where a new entrant needed to exchange call traffic with the incumbent. Such interconnection arrangements are complex, involving technical, financial and informational issues. With its knowledge of the network and immense bargaining power, it is easy for PCCW to delay or frustrate such arrangements to the detriment of the newcomers.

2 The Regulatory Framework

Competition did not develop merely because the community wanted it to happen; there was a lot of resistance and difficulties in the way. Without the force of law or authority, the incumbent would have used all resources necessary to eradicate new competing firms fighting for pieces of its profit pie.

Provisions promoting competition, etc. are contained in the licences granted to telecommunications service providers as well as in the Telecommunications Ordinance (Cap.106). Provisions generally prohibit anti-competitive conduct as well as encourage sector-specific competition. A notable aspect of the regulatory framework in Hong Kong is that there is yet no general competition law or Competition Authority – competition regulation is targeted specifically at the telecommunications and broadcasting sectors.¹⁴

2.1 The Licensing Regime

Under the Telecommunications Ordinance (TO), all telecommunications service providers are required to operate under licence,¹⁵ and before the TO amendment was passed in June 2000, all regulations against anti-competitive conduct were stipulated in

¹⁴ This may change soon – on 26 March 2007, four senior government officials provided a 40-minute briefing to the Economic Services Panel of LegCo confirming that the Government is “sincere and determined” about enacting a cross-sector competition law that meets the needs of Hong Kong. During the Q&A session, the Government suggested a November 2007 timetable for a draft law. There is fervent media activity surrounding that area.

¹⁵ See s.8, TO

those licenses. Licenses are technology-neutral and have no restrictions on the levels of foreign ownership.

Given the monopolistic nature of the fixed telecommunications sector at liberalisation, PCCW had always enjoyed a dominant market position. This necessitated the implementation of an asymmetric licensing regime in order to facilitate the development of market competition, i.e. the licensing regime imposes more onerous and specific obligations and prohibitions on the dominant operator than on new entrants such as Wharf T&T and HGC. The 1995 FTNS licenses contained the most detailed anti-competition provisions of all licences issued under the then Telecommunication Ordinance to level the playing field. These were:

- General Condition 15(1) – a broad prohibition against engaging in anti-competitive behaviour;
- General Condition 15(2)(a) – specific prohibitions against entering into collusive agreements;
- General Condition 15(2)(b) – specific prohibition against tying in favour of the licensee of a third party;
- General Condition 15(2)(c) – specific prohibition against giving a preference to and the receipt of an unfair advantage from associates; and
- General Condition 20(4) – prohibition against discounting by the dominant licensee.

OFTA subsequently issued a set of *Guidelines to Assist the Interpretation and Application of the Competition Provisions of the FTNS Licence* (the Guidelines) in March 1995, clarifying that the licence provisions were not an exhaustive antitrust or consumer protection regime, but rather, a standard of conduct.

After the codification of general competition terms in 2000, FTNS licenses have kept provisions including *inter alia* requirements to furnish information to the TA, interconnection and number portability requirements as well as pricing restrictions.

2.2 The Telecommunications Ordinance – Cap.106

The Telecommunications (Amendment) Ordinance (TO) was passed in June 2000, enhancing competition safeguards, improving interconnection and access to telecom services, streamlining licensing procedures and providing the Telecommunications Authority (TA) with powers over certain technical areas. Under the law, the Authority may provide determinations relating to anti-competitive practices.

The amendment codified the competition-related provisions originally stipulated in the licenses, i.e. price control,¹⁶ anti-competitive conduct,¹⁷ abuse of dominance¹⁸ and non-discrimination.¹⁹ A later 2003 amendment imposed restrictions on mergers and acquisitions in the telecoms sector.²⁰

2.3 The Regulator

2.3.1 Office of the Telecommunications Authority

The Office of the Telecommunications Authority (OFTA) was established on 1 July 1993 as an independent government department and is the executive arm of the TA, the statutory body responsible for regulating the telecommunications industry in Hong Kong. The TA's responsibilities include economic and technical regulation, enforcing fair competition rules and investigating industry complaints. Of note is that the Government has no ownership stakes in the telecommunications sector, and is therefore able to serve the public interest without conflict of interest.

In relation to competition issues, under the TO, the TA has the power to determine: whether a telecom service provider is in a dominant position; whether any actions constitutes anti-competitive conduct or abuse of dominance; and any pricing regulations. Under to the General Conditions in telecom service providers' licences, OFTA can suspend or revoke licences as appropriate. OFTA is also responsible for meting out penalties for breach of the competition rules in the TO.

In managing the transition from a monopolistic environment to a freely competitive market, the TA has taken a stance of minimal intervention, consistent with Hong Kong's laissez-faire economy. It aims to protect consumer interests and to ensure that efficient infant operators can enter the market with a fair opportunity to compete. The TA has maintained that it will not blatantly tilt the playing field to favour the new entrants. It is only when they are faced with unfair competitive conditions from the

¹⁶ See section 7G

¹⁷ Section 7K provides that a licensee shall not engage in conduct with the purpose of substantially restricting competition in the telecommunications market. Prohibited conduct includes price-fixing agreements and discriminatory service provision.

¹⁸ Section 7L provides that a licensee in a dominant position shall not abuse its position. In considering whether a licensee is in a dominant position, OFTA can consider the licensee's market share and ability to price its products. Prohibited conduct includes predatory pricing, price discrimination, forcing the conclusion of contracts subject to harsh terms or terms unrelated to the main subject of the contract and discriminatory service provision to competitors.

¹⁹ See section 7N

²⁰ Under the amendment, any merger or acquisition involving a stake of more than 15% in a telecom operator requires approval from OFTA. This recent addition gives OFTA the power to overrule transactions that sharply increase a firm's market share.

dominant carrier that the TA needs to enforce the rules of fair play. In other circumstances, the incumbent and new carriers alike are expected to negotiate and resolve their problems on a commercial basis with the TA acting as a mediator or facilitator only when necessary.

2.3.2 Competition Appeals Board

Higher in the hierarchy is the Telecommunications (Competition Provisions) Appeal Board (TAB), an independent statutory body constituted under section 32L-U of the Telecommunications Ordinance (Cap. 106) to determine appeals against the TA in enforcing fair competition in the telecommunications market in Hong Kong.

Upon closer examination, it can be seen that since 2001, most of the proceedings against the TA have been initiated by the dominant operator possibly because of its financial resources available to litigate for sustained periods of time.

2.3.3 Judicial Review

Decisions from both the Telecommunications Authority and the Competition Appeals Boards, being statutory bodies deriving their powers under legislation, are potentially amenable to judicial review by the High Court.

2.3.4 OFTA Guidelines and Decisions

OFTA periodically publishes guidelines to help industry players orient themselves to the meanings of the competition provisions. The guidelines themselves do not have the binding force of law, but are helpful nonetheless as the TA is expected to act consistently with them when dealing with competition complaints. OFTA has previously published guidelines pertaining to competition provisions and mergers and acquisitions under the TO.

2.4 Specific Issues Not Addressed by General Competition Laws

Aside from general prohibitions of anti-competitive conduct, the telecommunications sector is special in that for a healthy, competitive environment to foster, important 'access economics' considerations also need to be taken into account:

2.4.1 Building Access

Licensees must be able to install and maintain their network infrastructure in various buildings in order to provide services to tenants of a specific building. If the

person with the appropriate interest in the land does not allow access to his land, the growth of competition will be slowed.

Section 14 of the TO as amended in 2000 grants licensees rights to access land and install telecom infrastructure with the liberty to apply to a magistrate for an order to prevent a land-owner from obstructing the exercise of their powers.

Issues arising from building access

Given that most fixed-line telecom operators are direct or indirect subsidiaries of real-estate developers, it is not surprising that resistance to building access remains heavy despite legislation. Delays due to artificial red-tape are difficult to redress. Another problem stems from the general lack of space within many established buildings for telecom infrastructure. Operators have expressed the need to make better interconnection arrangements to existing infrastructure within buildings.

2.4.2 Number Portability

Number portability is the ability of consumers to keep their telephone numbers after moving to a new geographical location or after changing telecommunications service providers. It is a key enabler of competition in the telecommunications sector, responsible for keeping the telecom market fluid as consumers can freely move about geographically and change service providers without having to worry about the problems associated with getting a new phone number.²¹

Under directions issued to the various FTNS licensees in 1995, the TA has 'nationalized' Hong Kong's fixed network numbering plan,²² enabling customers to keep their existing numbers when they change locations or operators within the territory. Subsequent licenses and license updates have added the requirement for telecommunication operator licensees to conform to the numbering plan. Clearly displacing the incumbent's rights to the telephone numbers it assigns removes a major barrier to entry and facilitates sustainable competition.

Issues arising from number portability

Despite the licensing requirements on number portability, the incumbent can still hamper the introduction of competition. According to the determinations by OFTA

²¹ Market 'fluidity' or the frequency of customers changing service providers in the telecom market is also often termed 'churn rate'.

²² See directions issued in June 1995 to each FTNS licensee – <http://www.ofa.gov.hk/en/ta-directions/ta-directions-1995.html> accessed 21 January 2007.

in early 2001 and 2003,²³ the one-off set up charge can reach HKD 95.40 per number which is payable by the recipient network operator to the donor network operator (in most cases by the new operators to PCCW as there are more churns from PCCW). Contrasted with mobile number portability where the process is free of charge, the charges have been slated as “exorbitant” and as over-compensating the dominant operator.²⁴

Operators have also complained of the exercise of an unwritten ‘quota’ by PCCW on the quantity of number ports above which requests would not be entertained. This behavior directly restricts potential customers from switching from PCCW to the other operators. This behavior also increases the cost of doing businesses for the new operators and tarnishes their reputation if orders cannot be met.

To note, despite concerns in the industry about anti-competitive conduct practiced by the incumbent, number portability remains a key enabler of competition in Hong Kong’s fixed line telecom market and is relatively successful.²⁵

2.4.3 Interconnection

The way networks of different service operators interface (‘link to’) each other is termed interconnection. There are two types of interconnection recognised in the sector: Type 1 and Type 2. Type 1 interconnection arises when a caller calls another, who is subscribing to another operator. The two networks ‘interconnect’ at the point of interconnection (POI).

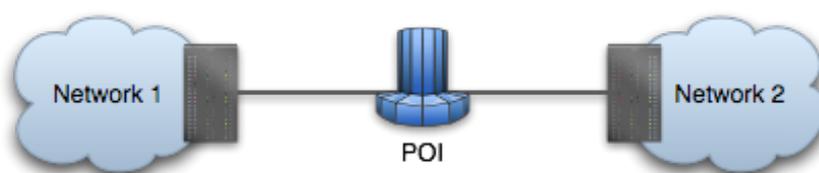


Figure 1 – Type 1 interconnection

Type 2 interconnection occurs at one side of two networks instead of the middle of two networks as in a Type 1 interconnection.

²³ These are the latest determinations on number portability charges, see: DE-01/2003 and DE-01/2001.

²⁴ See Wharf New T&T’s report on 27 November 2001 submitted to OFTA.

²⁵ OFTA statistics up to June 2006 report 84% success rate on number portings. 2,000-3,000 numbers are unsuccessfully ported (not ported) each month.

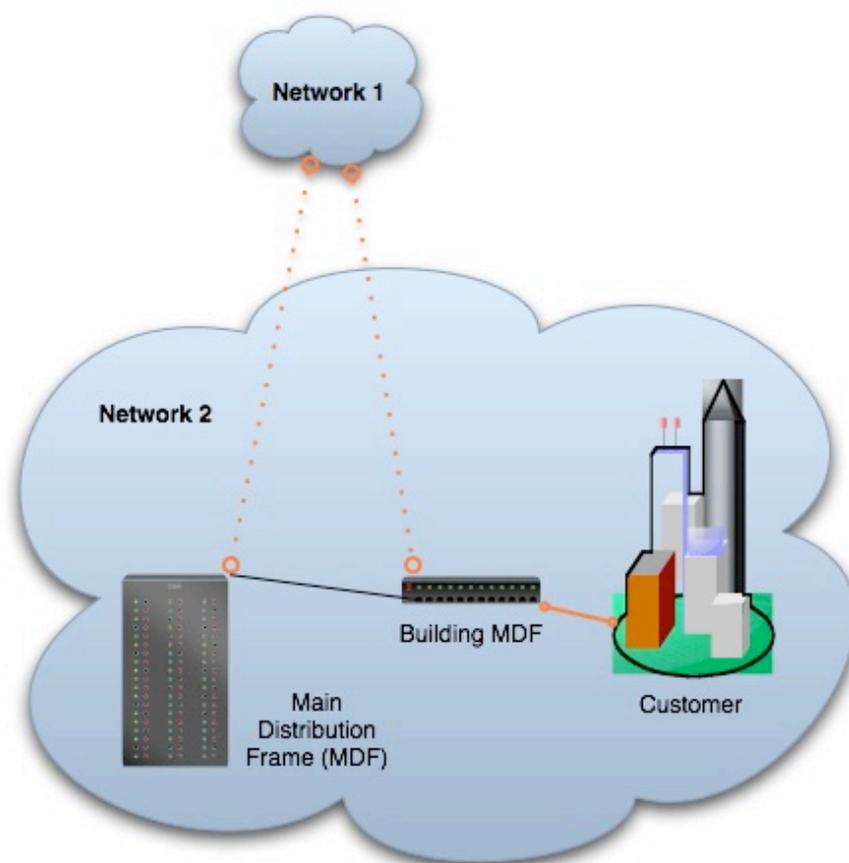


Figure 2 – Type 2 interconnection

Type 2 interconnection is more advantageous for new entrants as it saves them the large investments required in extending their networks below the level of the MDF. Referring to Figure 2 above, it can be seen that interconnection occurs either on the customers' premises main distribution frame, or on the customer side of the main distribution frame at the local exchange. Compared to Type 2, the incumbent prefers Type 1 interconnection partly because it does not want to give up its control over customer access, and partly because it holds the best cards when negotiating Type I interconnection charges. It has the dominant position, with an extensive backbone network and a large existing base of paying residential and business customers.

Interconnection is the primary way new entrants can quickly expand network coverage without hefty investments in network infrastructure. New entrants are therefore heavily incentivized to interconnect and are more likely to succumb to harsher terms to get in the market quicker before constructing their own networks. Allowing interconnection to foster is essential to the sustainable liberalisation of the

telecommunications sector.²⁶ Interconnection also reduces the need for unnecessary infrastructure duplication and disruption to the public. However, the Government also had to balance the interests of the incumbent and the greater public. Liberally allowing interconnection may encourage new entrants to ‘piggyback’ on the incumbent’s existing network infrastructure, reducing the incentive for them to innovate and invest in new network infrastructure.

Competition slowed – interconnection

After the expiry of HKT’s monopoly licence in 1995, the requirement to provide interconnection to other FTNS telecom service providers has been stipulated in all the FTNS operators’ licences as a General Condition (GC).²⁷ The Government announced that it preferred operators to resolve interconnection issues through commercial negotiation, intervening through the Telecommunications Authority only where negotiations had broken down.²⁸ Despite the regulatory requirements and the Government’s stance on this matter, negotiation has often been replaced by compromise as new operators submitted to terms dictated by the incumbent to start providing service in the fastest possible timeframe. Operators have complained of excessive charges;²⁹ PCCW’s refusal to provide sufficient interconnection facilities on fair and reasonable terms, promptly and efficiently; insufficient capacity in the interconnection infrastructure; and unreasonable delays in implementation.^{30, 31} They are also suspicious that they are interconnected to the least reliable lines and to faulty equipment. Understandably, the Telecommunications Authority has been more active in the early days of liberalisation, making more determinations under s.36 TO as regards to interconnection terms to ease the introduction of competition into the market. Determinations have pertained to interconnection charges, timeliness of interconnections and network capacity.

²⁶ See also the Statement from the Telecommunications Authority on 18 October 2002

²⁷ Currently, the interconnection obligation is provided as GC.13 in FTNS licenses. A requirement to share facilities is provided for under GC.31.

²⁸ See TA statement no.1: Interconnection and Related Competition Issues, 28 March 1995. Determination may be sought under s.36A

²⁹ Wharf T&T Ltd. had complained that it had to provide the costs for an entire network line when in fact traffic on it was shared between it and PCCW. Overcharges in some instances were over 100%.

³⁰ According to Wharf T&T, PCCW had taken over 10 months to establish co-location sites in the majority of instances. The industry standard is 5.5 to 7 months (Industry Code of Practice for the Implementation of Local Access Link and Related Facilities).

³¹ See Submission to the Telecommunications Authority (TA) on the Consultation Paper for the Implementation of the Full Liberalization of the Local Fixed Telecommunications Network Services Market From 1 January 2003, 27 November 2001 and also *Telecommunications Regulation in Hong Kong*, P. Xavier and Y. Xu

The negative effect competition has on profit margins is a key incentive for the incumbent to stall on interconnection issues. Given the technical complexities in interconnection, the asymmetric information about the network held by the incumbent gives it ample opportunity to delay interconnection implementation, skirting the interconnection requirements stipulated on its licence. The lack of transparency in interconnection costs gives rise to possibly excessive charges. There are different ways the incumbent can delay interconnection implementation to the detriment of new entrants.

Among the first steps in interconnection is contract negotiation. Here, the incumbent will stall and press for minute details, delaying the outcome of negotiations. As “there is no win-win solution in interconnection” negotiations,³² the incumbent will try to force disadvantageous terms on other operators. Often, an operator will submit to these less-than-advantageous terms because a determination can take up to two years (the usual time is several months). Even after the contract is finalised, there is scope for delay. Interconnection requires the cooperation of the two operators involved to implement both the physical and soft connections. Computers need to be reconfigured and rewired. During this phase, the incumbent can stall progress, taking its time to reconfigure the infrastructure and set up the interconnection facilities. These add to the cost of the disadvantaged operator, reducing its ability to compete with the incumbent. Operators cannot provide service until interconnection is complete and excessive delays have forced many to breach service agreements with prospective customers. Utilising its control advantages, the incumbent can also link the operator to faulty lines and equipment, reducing its quality of service and reliability.³³

3 Regulation Enforcement & Effectiveness

Having described the competition framework in the telecommunications sector in Hong Kong, it is useful to see how well they have helped transform the market from a monopoly to a dynamic and competitive economy.

3.1 Enforcement of Regulations

Anti-competitive behaviour prohibited under sections 7K to 7N of the Ordinance and under the licenses can be reported to the TA, who, in turn, will conduct a

³² Per interview with General Counsel, Wharf T&T Ltd.

³³ According to Wharf T&T, fault rates for residential lines in some areas have seen 20%.

preliminary investigation to establish whether there is a prima facie evidence to merit a full investigation. If a full investigation is feasible, both the complainant and the subject of the complaint are informed and the subject of the complaint will be given time to give information relevant to the case. Once all the required information is assessed, the parties are invited to make representations regarding their side of the story. If it is concluded that there was a breach of the Ordinance, penalties will be imposed.³⁴

New entrants have commented that it is difficult for OFTA to find any breaches of the Ordinance or licence conditions by the dominant operator due to insufficient information, narrow scope of the law. Additionally, a breach of the anti-competitive provisions require a “significant reduction of competition”, and a market-wide detriment is generally expected to involve senior management and a certain degree of systemisation, which is evidentially difficult to prove given that an operator can only show their side of the story. Accordingly, it is usual that only the most blatant transgressions of the Ordinance are captured by the TA.³⁵

3.1.1 Powers to Obtain Information

Informational difficulties are apparent because a complainant will only have information regarding its own case and competitors are not willing to openly share information about business practices. Section 7I of the Telecommunications Ordinance is a weak section providing for information gathering powers by the TA. Firstly, in constricting the competition provisions to the telecommunications sector only, information gathering powers can only be used upon “a person who provides or offers a public telecommunications service”, effectively narrowing the scope of the powers. Similar powers under a general competition law in the UK, Australia and Singapore, however, can be used upon any person and is not restricted to telecommunications service providers.³⁶

Between August 2003 and January 2005, OFTA received approximately 140 complaints concerning unauthorised discounts made by PCCW to businesses in Hong Kong. However, most of these could not be fully investigated because 97% of the contacted businesses refused to have their identities disclosed to PCCW. The TA

³⁴ OFTA publication December 2005 – How Complaints Related to Sections 7K to 7N of the Telecommunications Ordinance are Handled by OFTA

³⁵ Out of 39 investigated cases regarding competition provision breaches from 1999 to 2005, only 2 have resulted in some form of penalty on the subject of the complaint. Penalties include financial penalty, additional directions or suspension of the service licence – see: ss.36B, 36C.

³⁶ UK: section 26 of the Competition Act 1998; Australia: section 95ZK of the Trade Practices Act 1974; and Singapore: section 62 of the Competition Act 2004.

expressed concern over the limited amount of information that can be provided by both the complainant and the subject of the complaint, usually PCCW. This is an apparent difficulty presented by the current wording of the Ordinance that only compels telecommunications licensees to cooperate with the TA's formal information-gathering powers.³⁷ Most businesses do not want wish to be involved in investigations into allegations of unauthorised discounting practices for many reasons: they fear some form of retribution from the subject of the complaint; and they do not want to surrender the favourable deal they received in the first place. Weaknesses in the available evidence arose because there were few written documents associated with the offers and contracts subject to complaint. It is submitted that extending investigation powers to include non-licensees would greatly enhance the TA's ability to enforce competition provisions.

Another problem stems from the need for a reasonable suspicion by the Authority "to ensure a licensee's compliance with the provisions of the TO". Often, the only way for a reasonable suspicion to arise is to have documents available to evidence any transgressions into the Ordinance or licence conditions. The Australian Act only requires the Chairperson to *have reason to believe* that a person is capable to produce information relevant to competition matters.³⁸ It reduces the burden on the relevant authority to establish cause to investigate the potential information provider, and may reduce the response time for investigations.

Topping off is the fact that there are no criminal sanctions to punish or deter those who might frustrate the investigations of the TA.

3.2 Effectiveness of Regulations

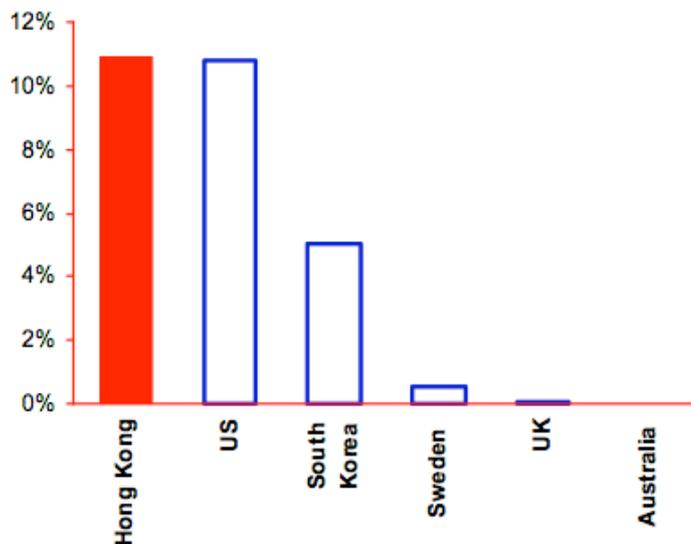
3.2.1 Interconnection

Despite complaints in the sector about excessive charges and undue delays in interconnection arrangements with the incumbent, interconnection has been relatively successful in Hong Kong compared to other markets in the Asia-Pacific region as well as overseas. It would seem that OFTA's determinations regarding charges and other terms in interconnection agreements have helped straggling entrants establish a foothold in the market and expand interconnection infrastructure. The popularity of interconnection in Hong Kong is also due to Hong Kong's geographical circumstances. At 1,042 square

³⁷ Section 7I(1) TO

³⁸ See section 95ZK of the Trade Practices Act 1974, *ibid*. Chairperson refers to the Chairperson of the Australian Competition and Consumer Commission.

kilometres and a population of near 7 million, Hong Kong is one of the most densely populated cities in the world. Rolling out new physical networks and networking facilities is prohibitively expensive and disruptive as it is mostly done underground. Interconnection provides a feasible way to expand network coverage without unnecessary duplication of network infrastructure.



Note: (1) Does not include lines provided on a wholesale / resale basis
 (2) Data for year end 2004 except Australia and Sweden (June 2004) and South Korea (2003)
 (3) There are an estimated 784 unbundled lines in Australia. Accurate information on the number of LLU lines in Japan is not available at time of publication. No significant number of unbundled lines in Singapore

Source: FCC & ECTA

Figure 3 – interconnection facilities as a percentage of all local access lines

One way interconnection can be seen to have a positive effect on the competitive landscape in Hong Kong's telecom sector is that new entrants can now afford to deploy their own network infrastructure and reduce their dependency on interconnection facilities.³⁹

3.2.2 Telecommunications Service Prices

Prices of telecommunications services tend to decline substantially after market liberalisation as competitors begin offering competing products at lower prices and at the same time, force the dominant service provider to increase operating efficiency, bringing down prices. As of 2003, local fixed calls in Hong Kong remain more affordable than in most other comparable markets, but that does not take into account VOIP services that provide comparable functions at 55-80% of the price.⁴⁰ Mobile service prices have seen dramatic reduction compared to other markets: from being one of the

³⁹ Re: interview with General Counsel, Wharf T&T Ltd.

⁴⁰ See 2006 Spectrum Report for OFTA

least affordable markets in 1996, Hong Kong has developed to become the most affordable market. The increasing affordability of mobile services may explain the very high (133 percent) penetration rate in Hong Kong.⁴¹

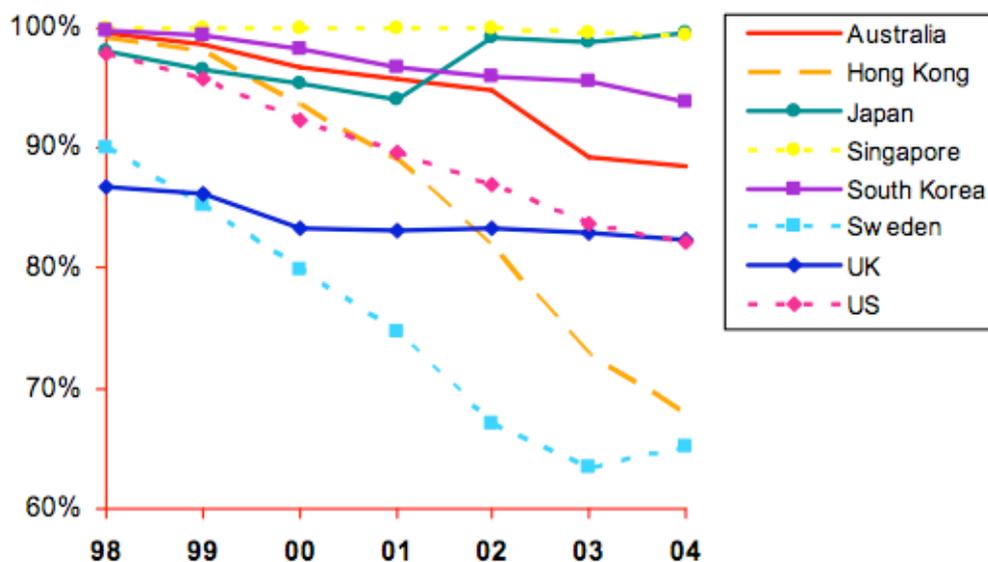
3.2.3 Incumbent Market Share

Eleven years since the introduction of competition, Hong Kong's fixed-line incumbent, PCCW Ltd., has lost over 30% share of the fixed-line market. Competition regulations have markedly transformed Hong Kong's telecoms sector from a monopoly into a competitive, market driven one. There are now 10 wireline FTNS operators in Hong Kong vying for the profit pie. According to Figure 4 below, only in Sweden have new entrants gained more market share than in Hong Kong.

Japan	Singapore	S. Korea	Australia	UK	USA	Hong Kong	Sweden
100%	99%	92%	88%	82%	82%	70%	65%

Figure 4 - local fixed voice sector market share of incumbent operators

Number portability and the fact that no mobile service company really had a head start have given rise to a highly competitive mobile sector. As of 2006, no operator can be said to have dominance characteristics, and out of comparable markets, Hong Kong is the most fragmented market.



Note: (1) Despite liberalisation of the Singapore local fixed voice sector in 2000, no significant competition to incumbent by year end 2004

(2) Japan's trend performance post-2002 is the result of differential data sources

Source: Various including Merrill Lynch, CSFB, PTS, OFCOM, ACA & FCC

Figure 5 - market share of largest mobile operators

⁴¹ See OFTA 2006 report

3.2.4 Industry Investment

Up to 2001, Hong Kong has invested more than all other comparable markets save for UK and Japan. From 1991 to 2001, the cumulative telecommunications investment represented 7.2% of Hong Kong's 2001 GDP, comparable to UK and Japan.

USA \$939	S. Korea \$1,202	Singapore \$1,218	Sweden \$1,407	Australia \$1,684	HK \$1,761	UK \$1,786	Japan \$2,450
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Figure 6 - cumulative total investment per capita, 1991-2001

3.2.5 Findings

There is ample empirical evidence that supports the view that competition regulation has indeed been effective in increasing interconnection between service providers, lowering service charges, reducing the dominance of the incumbent, and increasing investment in the telecommunications sector, cumulating in benefits for the consumer.

4 Deregulation or Re-regulation?

It is realised that the liberalisation environment in the telecommunications sector is unique in that initially, a single operator – the incumbent, is usually dominant in the provision of basic telecommunications services. Furthermore, the existence of expensive and technical barriers to entry makes for a unique regulatory landscape encompassing non-standard competition provisions such as interconnection and number portability. The successful introduction of competition into a monopolised sector requires careful consideration and proactive regulation to ensure an even playing field for new entrants. Quantitative evidence has shown that the efforts of the Telecommunications Authority and the force of regulation have allowed competition to erode the dominant operator's market share in basic telecom services. Aggressive marketing campaigns, price pressures, product / service innovation and substitution and growing network coverage by competitors have caused PCCW's market share to plummet from 100% in 1995 to 68% in a little more than ten years. The rate at which the dominant fixed line operator has been losing market share is the fastest among liberalised countries such as Sweden, USA and the UK.⁴²

⁴² See Spectrum Report, 2006

When the incumbent operator is no longer ‘dominant’ due to competitive pressures, it becomes unfair and potentially detrimental to the market to enforce proactive and asymmetric regulation against it – the advantages of competition cannot be fully realised until asymmetric restrictions over the incumbent’s actions are relaxed. One way to re-level the asymmetric playing field is for the telecom regulator to be less proactive and more reserved in the exercise of its competition regulatory function against the incumbent operator. This section will explore the move from ex-ante to ex-post regulation and its impact on the competitive landscape in Hong Kong.

4.1 Declarations of Non-dominance

A licensee is in a dominant position when, in the opinion of the Authority, it is able to act without significant competitive restraint from its competitors and customers.

Section 7L, Telecommunications Ordinance

Dominance entails many features. A dominant operator enjoys dominance, control and structural advantages over its competitors; without restraint from competitors and customers, he can earn supernormal profits. On the other hand, he is also subject to stricter constraints on matters of tariffing, accounting practices and anti-competitive conduct.⁴³ The inflexibility experienced by PCCW has led it to apply for Declarations of Non-Dominance in various markets over the years to remove asymmetric constraints upon it in specified markets. On 28 November 1997, the TA refused the PCCW’s application for such a declaration in the International Business Call Market. Another similar application was refused by the Authority on 23 May 1998. Later applications met with greater success. PCCW has now been declared non-dominant in the markets for international call services and external bandwidth services.⁴⁴

In assessing whether an operator is dominant, the TA must consider whether the operator is able to act without significant competitive restraint from its competitors and customers in a specific market.⁴⁵ Various factors are weighed to assess whether the operator is dominant in that market, specifically:⁴⁶

- Market share and market concentration;
- Power to implement decisions;
- Barriers to entry;

⁴³ See General Conditions on PCCW’s licence before 2005 amendments. Additionally, the regulator is more likely to act against the dominant operator’s interests.

⁴⁴ See TA decisions on Declarations of Non-Dominance (generally)

⁴⁵ This definition appears in s.7L of the Telecommunications Ordinance

⁴⁶ See TA decisions on Declarations of Non-Dominance (dominance attributes) as well as Guidelines

- Product differentiation and sales promotion;
- The nature of corporate relationships;
- Any other relevant factor

4.1.1 Most Recent Application for Non-dominance

In the second half of 2003, PCCW applied to the Telecommunications Authority (the TA), for Declarations of Non-dominance in the markets for both business direct exchange line (BDEL) services and residential direct exchange line (RDEL) services. Such a declaration would effectively render PCCW non-dominant in all markets. PCCW has applied for its licence conditions relating to accounting practices and tariffing restrictions, to be removed in respect of the markets for BDEL and RDEL services. These applications are the most recent in the series of non-dominance applications submitted by PCCW to date.

The bases of PCCW's applications

PCCW claimed, amongst others, the following in support of its non-dominant status in the BDEL and RDEL services markets:

- its declining market share which, in the period before the applications, had fallen to below 75%, and increasing monthly churn rates;
- the existence of multiple competing local access networks that provide alternative, sustainable customer access options for the relevant services to almost all consumers of the relevant services;
- the level of excess capacity on competing networks;
- the absence of legal or regulatory barriers to entry;
- the establishment of efficient regimes for access to buildings, use of block wiring and road opening;
- lack of customer inertia given the strong brand recognition and the high market share for the provision of other telecommunications services of competing network operators;
- an already high degree of price competition, and increasing product differentiation, in the relevant markets; and
- a substantial, and increasing, substitutability of mobile services for fixed line services.

Analysis of PCCW's application

PCCW's submissions understandably met with fierce opposition by competitors, notably the second-largest fixed-line telecom operator by market share, Wharf T&T. The TA's position is that market share is fundamental to the assessment of dominance,

though not the sole determinant. The TA has previously published a set of Competition Guidelines specifying a number of rebuttable, quantitative presumptions of dominance:⁴⁷

- a licensee with a greater than 75% market share will be presumed to be dominant;
- a licensee with a less than 25% market share will be presumed to be non-dominant; and
- there will be no presumption in respect of a licensee with between 25% and 75% market share.

Both Wharf T&T and HGC vigorously opposed the presumption of dominance only where market share is over 75%, instead suggesting that dominance should be presumed with a market share over 50%. Indeed, the 75% presumption stipulated in 1995 has been ignored by the TA in their subsequent analyses of non-dominance applications, which have used a 50% threshold.⁴⁸ The use of a lower threshold is affirmed by the European Court of Justice, which has held that dominance can be presumed in the absence of evidence to the contrary if a firm has a market share persistently above 50%.⁴⁹ It is therefore submitted that the TA should use the 50% threshold to be consistent with its previous procedures as well as with comparable overseas regulators. Since PCCW's market share has persistently been above 50% in both RDEL and BDEL markets, it is submitted that a declaration of non-dominance without further analysis of economical evidence would be premature.

The fact that there are no legal or regulatory barriers to entry into the relevant markets in Hong Kong assists PCCW in its application for non-dominance. Furthermore, PCCW cites high churn rates as evidence that there are no significant physical, technical or financial barriers to entry either. However, it must be understood that PCCW enjoys the most comprehensive network coverage in Hong Kong. Competing operators interconnect with part of this comprehensive network to reach a wider customer base, mainly using Type 2 interconnection. As detailed in section 2.4.3 above, competing operators have complained that PCCW has excessively priced the interconnection charges to reduce its competitor's margins – a process known as 'margin squeezing'. Network infrastructure is highly capital intensive and one cannot overlook PCCW's control of the dominant fixed-line network as a significant financial and

⁴⁷ Guidelines to assist the interpretation and application of the competition provisions of the FTNS Licence – June 1995.

⁴⁸ See for example: the TA statement on 4 August 1999 ("the 1999 Statement") concerning the application for a declaration of non-dominance in the international call services market for non-China routes by Cable & Wireless HKT Telephone Limited (now PCCW); and all subsequent statements regarding non-dominance.

⁴⁹ C62/86 AKZO *Chemi BV v Commission* [1993] 5 CMLR 215

technical barrier to entry. Indeed, the very thin profit margins and fierce competition in the fixed-line industry discourage prospective entrants from entering the market.

PCCW also enjoys customer inertia (a dominance advantage) attributable to its control of the legacy network. Customer inertia is apparent where a customer has multiple sites (offices) and is looking for a telecom services provider. Usually, PCCW will have network coverage at all the customer's sites and competing operators may only have access to one. The dominant operator will offer a compellable discount if all sites are given to him to operate. That puts competing operators at a disadvantage because they cannot match the pricing of the dominant operator if they only take hold of one site. Furthermore, since the discount is only available if all sites are given to PCCW to service, the customer will be unwilling to forgo the discount by giving one or two sites to a competing telecoms provider.

However, despite the dominance characteristics exhibited above, there is compelling evidence to show that PCCW cannot act independently of competitors and consumers, meriting its application for a non-dominance declaration. Dominance is a high threshold; for an operator to be dominant, it has to have "more than the mere ability to behave largely independently of competitors".⁵⁰ That echoes of the first legal test of dominance laid down by the European Court of Justice, that dominance gives a person "the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers".⁵¹ The fact that there are barriers to entry and that PCCW controls some inputs to the telecom sector does not mean it is dominant in respect of the relevant markets. The rollout of network infrastructure by competitors, notably Wharf T&T and HGC, have undermined the historical market power exercised by PCCW, as a result, 70% of households and offices now have two or more telecommunications service providers to choose from.⁵² As detailed before, number portability combined with aggressive marketing campaigns have increased consumer churn rates, restricting PCCW ability to unilaterally set prices. This has also pushed PCCW to frequently seek OFTA approval to provide price discounts generally to the BDEL market.⁵³ PCCW's efforts to differentiate products and offer discounts had substantially increased over the last two years, indicating that it cannot act independently of competitive forces.

⁵⁰ *Commerce Commission v Port Nelson Ltd* (1995) 5 NZBLC 103-762

⁵¹ *United Brands v Commission of the European Communities*, Case 27/76, [1978] ECR 207, para 65-66

⁵² OFTA-commissioned 2005 Spectrum report

⁵³ The details of these and other services and promotions, all driven by the competitive market, were fully described in the Application.

Is PCCW dominant in the fixed line markets?

Answering this question would put the Telecommunications Authority in a dilemma. If the answer remains in the positive (yes), then the TA would be seen to move away from the high-threshold concept of dominance decided in major jurisdictions overseas. The TA would then be open to possible embarrassment by judicial review. If answered in the negative, although consistent with jurisdictions overseas, it would upset the remaining nine competing telecom operators who share a mere 30% of the remaining market share. It would also overlook PCCW's substantial residual power and control over the market. Probably of most concern to the TA is that a finding of non-dominance might render the prohibition of certain strategic behaviour, such as predatory pricing, price discrimination and tying arrangements, under section 7L of the Telecommunications Ordinance or General Condition 16 of PCCW's licence, inapplicable.

The question has been resolved, perhaps, by the removal of ex-ante tariff regulation imposed upon PCCW by the TA – a halfway house. By giving PCCW pricing flexibility through a new licence, the TA has temporarily dodged the thorny issue of dominance.

4.2 Tariff Controls

One of the most important competitive safeguards introduced by the Authority in relation to the domestic fixed line market has been the imposition of tariffing rules on the dominant operator. These rules are provided by General Conditions 20 to 23 in all FTNS licences, but have been waived by the Authority under GC.44 for non-dominant operators. The dominant operator is obliged to apply to the TA for prior approval for every individual discount, promotion or change in tariff of its fixed telephony services. The intention is to prevent the dominant operator from pursuing anti-competitive conduct, especially price wars and discriminatory pricing. For each application, it must submit the relevant cost information for the TA to carry out a profitability analysis and conclude whether there is any prohibited pricing behaviour. According to GC 21-23 of the FTNS licence, the TA must approve or reject any tariff revision within 30 days and tariff for new services within 45 days upon receipt of the application. Under GC.20, the dominant operator must also publish its individual tariff plans in the Government Gazette before such tariffs become effective.

4.2.1 Ex-post Regulation for Tariffs

On 13 January 2005, OFTA announced the lifting of the prior approval requirement on PCCW's prices under provisions contained in its new fixed carrier (FC) licence.⁵⁴ Before this arrangement, PCCW had to wait up to a month before its tariff changes were approved or disapproved; Under the new FC licence, PCCW no longer has to have its prices (including moves to offer discounts and other benefits in response to price competition) approved by the TA. PCCW now only needs to notify the TA of tariff changes / discounts one day before implementation for the TA to consider whether it is in the public interest to publish the new tariffs on the Government Gazette. PCCW also needs to post its tariffs on its website for public access to protect customers.⁵⁵

Pressure for change had mounted over the years as the market share of the incumbent eroded, alternative products emerged and barriers to entry were lowered. Indeed, even under the ex-ante regulation, the TA had mostly approved PCCW's tariff applications.⁵⁶ The burning question of whether PCCW should be declared non-dominant in basic markets was forcing the TA to decide on a plan of action quickly. The move to ex-post regulation can be seen as politically correct, allowing regulatory measures to be imposed on a proportionate rather than an all-or-nothing basis, and is consistent with international practice regarding re-regulation.⁵⁷

It must be noted that notwithstanding the erosion of market share, PCCW still holds a staggering 68% of the fixed line market, with dominance, control and structural advantages. The removal of a primary restriction on PCCW's competitive ability will undoubtedly affect the competitive landscape for Hong Kong's telecom sector. The question remains, however: by how much? As of the time of writing, PCCW's market share has stabilised as it flexibly adjusts its pricing across the territory. Service providers have reported increased difficulty in customer retention.⁵⁸

⁵⁴ See TA statement ST-03/2005 –Implementation of ex post Regulation of the Tariffs of PCCW-HKT Telephone Limited under a New Fixed Carrier Licence issued on 13 January 2005.

The TA has decided to maintain ex-ante regulation on the existing interconnection tariffs of PCCW so as not to disturb the status quo with respect to interconnection arrangements.

⁵⁵ See SC.7 “Publication of Tariffs” of the new FC Licence

⁵⁶ From 2002 to 2003, the TA approved 251 tariff applications, rejecting one only. PCCW withdrew nine – Wharf T&T's submissions Submission to the Telecommunications Authority (“TA”) on the Industry Consultation Paper of “Moving from Ex Ante to Ex Post Regulation of the Tariffs of PCCW-HKT Telephone Limited” and the Proposed Fixed Carrier Licence to be issued to PCCW-HKT Telephone Limited.

⁵⁷ According to internal memorandum, the TA related to UK's ‘Ofcom’, which imposed no prior tariff approval on British Telecom, which had ‘significant market power’ in the fixed narrowband sector. Australia was also exemplified.

⁵⁸ Per interview with General Counsel, Wharf T&T Ltd.

It is well known that telecom service profit margins are low compared to other industries. Price competition is not a long-term favoured strategy of operators. Consequential to the abolition of tariff control is perhaps an increased interest in product and service innovation as service providers realise that prices have hit rock bottom. Innovative products with better margins that can be bundled with telecom services such as 'business recovery', 'data storage' and 'data backup' services have begun to emerge in the market to recoup the operators' paper-thin margins. Wharf T&T's recent acquisition of software company CRL affirms this increased service diversity as it begins to provide software services together with telecommunication services. CTI's release of triple-play services (VoIP, IPTV, Internet) is also testament to growing innovation to escape the vicious cycle of price competition

An added challenge to the future of price regulation is how the TA will assess the competition effects of a pricing change. Any assessment of the effects of tariff changes on competition will require information to be supplied by PCCW and related parties. For effective regulation, it is submitted that the information-gathering powers of the TA under s.7I must be reinforced.⁵⁹

4.3 Phase-out of Mandatory Type 2 Interconnection

Hong Kong was the first economy in the world that opened the incumbent's local loops for interconnection in order to facilitate local network competition. Compared with other economies, local network competition has progressed relatively well in Hong Kong.⁶⁰ Mandatory Type 2 interconnection among operators was intended to allow the new entrants to use the local network infrastructure laid down by the then HKT (and increasingly, each other) to kick-start their own services quickly without incurring large capital expenditures on infrastructure. This mandated interconnection policy was intended to be interim rather than permanent.⁶¹ Indeed, the dominant operator had been pressing for its relaxation since 1998 to preserve market share and revenues. On 6 July 2004, the Telecommunications Authority announced the withdrawal of mandatory Type 2 interconnection facilities at the telephone exchange level (see Figure 2 above, local exchange level MDF). The withdrawal is intended to promote network infrastructure investment and is to be fully implemented by 30 June 2008. This move is a middle ground between the total relaxation of mandatory interconnection

⁵⁹ For more, see section 3.1.1 on page 17

⁶⁰ See Figure 3 on page 19

⁶¹ K.S. Kwong & M.C. Shiu, *Historical Mission Accomplished: liberalising Type-II interconnection policy in Hong Kong*, 1 August 2003.

agreements and the status quo. It relaxes regulation in line with industry developments yet still mandates interconnection for the 'last mile'.⁶²

The original objectives for implementing mandatory interconnections have been to open the widest range of quality telecommunications services for the community at reasonable cost; to provide telecommunications services in the most economically efficient manner possible; and to enable Hong Kong to serve as the pre-eminent communications hub for the region now and into the next century.⁶³ Now that the original objectives in relation to interconnection have mostly been achieved, there is a need to re-think interconnection arrangements.

New entrants have begun to reap the benefits of their marketing campaigns, enjoying brand awareness and increased market share. With increased capital they have begun to construct their own infrastructure to extend network coverage instead of relying upon interconnection arrangements with the dominant operator.⁶⁴ Over 74% of households currently enjoy access to more than one fixed-line operator.⁶⁵ Moreover, new technologies and bandwidth demands have rendered PCCW's legacy copper network largely obsolete. It would be contrary to the Government's original objectives to mandate interconnection arrangements with a network that cannot meet the future needs of telecommunications.

	Business	Residential
PCCW-HKT	>99%	>99%
HGC	95%	93%
NWT	49%	22%
Wharf T&T	59%	19%
HKCTV	80%	83%
HKBN	73%	82%

Table 3 – percentage of sites reached by network operators

Notwithstanding that interconnection has fulfilled many of its initial objectives, its total withdrawal would be premature for the next few decades, perhaps even impossible with today's technological advances. Most important is the control of in-building network infrastructure (the 'last mile') that the dominant operator enjoys. There

⁶² The 'last mile' is defined by the industry to mean the network infrastructure inside a structure that connects directly into customers' premises. Some of the most vocal submissions lamented the total abolition of interconnection arrangements because PCCW still controls much of the network infrastructure within buildings. Without mandatory interconnection at the Building MDF (see Figure 2), PCCW would be able to control service access to buildings with congested wiring.

⁶³ See ST-04/1995 – Interconnection and related Competition Issues Statement No.1 issued on 28 March 1995

⁶⁴ HGC has implemented their own optic-fibre based network with access to most urban areas of Hong Kong

⁶⁵ HK Government Yearbook 2005: http://www.yearbook.gov.hk/2005/en/17_10.htm accessed May 2007

is only a limited space that is available for network infrastructure inside a building. In the days before 1995, almost all buildings allocated that space to the incumbent operator to install telecommunications wiring and other infrastructure. PCCW now controls that space and other operators cannot install their physical networks in those buildings to reach customers within without lengthy, possibly futile negotiations with either PCCW or the relevant landlord; the only workaround is interconnection. If interconnection were to be totally withdrawn, it would mean that a vast number of customers would lose the right to be served by the fixed-line operator of their choice.

The abolition of mandatory Type 2 interconnection arrangements is an important and commendable step the TA has taken to recognise that competition has established a foothold in Hong Kong's fixed-line telecommunications sector, and that the sector needs to be re-regulated in light of changing circumstances and technologies. It also shows that the TA is sensitive to the needs of new entrants and is aware of the structural advantages that the dominant operator enjoys.

5 The Future of Telecoms Regulation

The fixed-line telecommunications sector of Hong Kong is now at a crossroads, having evolved from a monopolistic economy to a competitive arena that includes a giant operator with dominance advantages yet without much market power. Competition regulations have been progressively relaxed in recognition of the market share achievements of the new entrants. Substitution is finally becoming a viable threat to even the dominant operator's bottom line in the fixed line market. Telecoms regulation will continually need to adapt to these changes if the competitive landscape is to remain sustainable in the future.

5.1 Mergers and Acquisitions

“This regulation [s.7P] may have an adverse effect on our ability to grow our business through mergers and acquisitions.”

City Telecom 2006 Form 30F filing

Hong Kong's telecommunications sector has arguably reached the limits of natural growth. Mobile telephone penetration is one of the highest levels of the world (133%) and fixed-line subscriber growth is very limited. In this environment of intense competition, consolidation will become a viable tool for telecom operators to achieve a

dominant position or increase market share.⁶⁶ The Government has realised this, legislating s.7P of the Telecommunications Ordinance on 9 July 2003 to counter the possible negative effects that M&A may have on the competitive landscape.⁶⁷

This set of complicated provisions is designed to prevent the “substantial lessening of competition” in telecommunications markets, and comes into operation after there is a “change” in a carrier licensee beyond the specified three tiers of control (an ex-post regulation). The TA has divestiture powers in this ex-post regime, meaning that it is unclear and uncertain whether a share transaction has adverse implications until the transaction has occurred.⁶⁸ The complexities (18 subsections) in section 7P arise from trying to take both existing and potential shareholders of carrier licensees into account.

Notwithstanding the numerous subsections, a loophole is established by the fact that only acquisitions of shares can be investigated under this provision; acquisitions of assets are ignored. In 2006, Macquarie Bank of Australia and Newbridge Capital, affiliate of the U.S. private equity firm Texas Pacific Group, vied for PCCW’s principle assets valued at around \$4 billion. The attempt (which was ultimately rejected) to purchase shares can be seen as skirting the section 7P restrictions on share dealing.

“People familiar with the deal say... PCCW’s suitors apparently want its principal assets, but not shares of the Hong Kong-listed company, which Li largely controls through another company, Pacific Century Regional Developments, a property investment firm listed in Singapore.”

David Barboza, New York Times, 21 June 2006

The merger provisions are also special in that the economic test it uses is whether or not a merger or acquisition is likely to result in a substantial lessening of competition. This formulation is akin to section 7 of the Clayton Act, USA, where a merger is prohibited if its effect may be “... substantially to lessen competition”, and is inconsistent with the other competition provisions of the ordinance which preclude conduct that “prevents or substantially restricts competition” in the market. The TA, perhaps confusingly, considers the two to be identical to each other, and uses each interchangeably.⁶⁹

⁶⁶ See “Hong Kong’s Regulatory Dichotomy”, Morgan Stanley, 2003. There is evidence of increasing consolidation activity, see: Circular re: proposed merger of HK CSL Ltd. and New World PCS Ltd. 7 March 2006; Acquisition of PCCW assets by Macquarie Bank and Newbridge Capital June 2006.

⁶⁷ See also Paul Weiss (a firm), New Merger Approval Process for Hong Kong’s Telecommunications Sector, 18 July 2003

⁶⁸ See s.7P. This uncertainty is somewhat mitigated by s.7P(6), (7) where consent to a proposed share transaction can be applied for.

⁶⁹ See Guidelines

This inconsistent language, combined with the loophole and lack of strong investigation powers in the TO will likely lead to deficient regulatory decisions and the section would fail to live up to its legislative purpose.^{70,71}

5.2 The Changing Role of the Regulator

As competition in the telecoms sector intensified, the regulator has seen it necessary to adjust its enforcement strategy from encouraging competition in the 1990s and early 2000, to re-leveling the playing field in implementing ex-post tariff regulation for the incumbent and phasing out mandatory Type-2 interconnection. According to Mr. Hill, the current Head of Competition Affairs for OFTA, OFTA will continue to realign itself by relaxing regulation and being more of a mediator and facilitator in negotiations between telecom companies on commercial arrangement such as interconnection, directory services, number porting. Professor R. Whish of King's College, London suggests that the competition-regulation function of the regulator will fade out of view as competition matures in an industry sector.

5.3 An Era of Technological Convergence

“The existing legislation was drafted a long time ago. Our current regulatory regime cannot keep up with technology development. Some kind of revamp is necessary. ... This is not an easy task. We have two bodies of legislation and two regulators. We need to draft a whole new set of legislation. This is going to take a very long time.”

Secretary for Commerce, Industry and Technology, John Tsang Chun-wah

Over the last 16 years, dramatic technical and economic changes have been observed in the telecommunications and broadcasting sectors globally, bringing them onto each other's territories. The broadcasting market has become less vertically integrated as operators no longer need to engage in the conventional operation of a broadcasting station from content production, programming to transmission. The medium of transmission is now highly flexible and versatile. The boundaries between telecommunications, broadcasting and information technology are increasingly blurred. The blurring of roles may necessitate convergence of the regulatory bodies.

At the policy level, the consolidation of responsibility for communications policy was proposed in 1997. In April 1998, the Government put telecommunications, broadcasting and information technology – three bureaux of the Government Secretariat, into one single policy bureau by establishing the Information Technology and

⁷⁰ For a discussion on information-gathering powers, see section 3.1.1 on page 17.

⁷¹ See also P. Macmillan, Submission on Hong Kong Competition Policy, 2007

Broadcasting Bureau (now the Communications and Technology Branch of the Commerce, Industry and Technology Bureau). This arrangement has enabled better coordination of policies concerning these importantly intertwined sectors.

Overseas in the UK and Australia, convergence of technologies and markets has led to convergence of regulators. Hong Kong, however, still maintains a split-sector regulatory framework. At the regulatory level, the Broadcasting Authority (BA) regulates television and radio broadcast services in accordance with the Broadcasting Ordinance (Cap. 562) and Part IIIA (Sound Broadcasting Service) of the Telecommunications Ordinance (Cap. 106), respectively. On the other hand, the Telecommunications Authority (TA) regulates the telecommunications sector in accordance with the Telecommunications Ordinance and the technical standards for broadcasting services.

In March 2006, the TA issued a consultation paper proposing the merger of the existing Telecommunications and Broadcasting Authorities into a new Communications Authority (CA). The new CA will address competition among other areas. Leaving behind the question of whether a general competition law will be enacted, the proposal requires careful deliberation.⁷²

5.4 A General Competition Law?

It is highly probable that Hong Kong will legislate its first general competition law within the next two years. The Consumer Council has already handed in its submissions in response to the Hong Kong Government's Competition Policy Review. The proposed law will likely overlap with the general competition provisions provided in the Telecommunications Ordinance.

It is submitted that the replacement of the general competition provisions in the TO will not affect the competitive landscape in any way as the relevant provisions are generally worded. What a general competition law can do is to address the bundling of telecommunications services with non-telecom products and services by dominant businesses. Currently, with sector-specific regulation, the Telecommunications and Broadcasting Authorities can only regulate their respective licensees.

⁷² For a brief on the case for a new Communications Authority, please see: M. Williams, Establishment of a Communications Authority for Hong Kong, 2006

5.4.1 Relieving Tying Arrangements and Improper Leverage

In late 2003, residents of Banyan Tree estate complained that their right to purchase telecommunications services from competing providers was restricted because certain telephone and internet service charges by HGC were 'included' in their management fee. The TA found that the property manager had deprived competing operators of the opportunity to supply competing services via open tender. It also found that the arrangements effectively increased competitors' prices vis-à-vis the prices of HGC – these arrangements were potentially in breach of section 7K(3)(c) of the TO. The scathing fact was that the property manager was associated with HGC; HGC was at the relevant time an indirect, wholly-owned subsidiary of Hutchison Whampoa Limited (HWL), which in turn is owned by the property manager Cheung Kong Holdings (49.9% shareholding). Unfortunately, the TA could not find evidence that HGC had knowledge of the advantages and that the offender in this case would be the property developer, the person instigating the tie-in arrangement. As the TA can only regulate licensees, the TA had no jurisdiction over the 'offending' property developer – the case was closed. On 30 January 2007, the South China Morning Post reported a series of similar complaints from another estate that the TA has no jurisdiction over.⁷³ It is submitted that a general competition law can help to prevent unfair dominance leveraging amongst conglomerates and business holdings groups.

5.4.2 Changes to the Regulator

The promulgation of a general competition law would necessitate the formation of a competitions authority to regulate various industries. Owing to the highly technical aspects of telecommunications, Mr Au Man Ho, Director-General of OFTA, said that he has yet to see a developed economy dispensing with sector-specific regulation for the telecommunications industry. There are three options:⁷⁴

1. Vest full oversight with the competition authority;
2. Keep sector-specific regulation within the duties of the TA;
3. Functionally separate the TA from the competition authority.

The first approach entails the competition authority regulating competition in the telecom sector. It eliminates jurisdictional overlap and enhances regulatory

⁷³ South China Morning Post – 30 January 2007

⁷⁴ A more comprehensive study of the various options may be found in Appendix II of the Report of the ICN Working Group on Telecommunications Services, 2005

coherence. However, issues not within the realm of general competition provisions such as number portability and interconnection may delay resolutions of technical problems. Given that the TA has a considerable history in hearing and determining competition cases, it is submitted that a full move to singular oversight by a new statutory body would be premature.

Applying the second approach would keep the TA in charge of competition regulation in the telecom sector. But there is a risk of duplication in efforts especially in cases of dominance leveraging by conglomerates. The increasing convergence of telecommunications with other industries contributes to the risk of duplicated efforts.

The third option demands effective co-ordination mechanisms between the TA and the competition authority as it vests technical regulatory functions on the TA and competition functions on the competition Authority. Although theoretically sound, this option may sacrifice efficiency due to its complexity and cause regulatory delays.

6 Conclusions

Hong Kong's telecommunications sector has moved far from the days when it was dominated by a single monopoly. Pro-competition regulations, technological changes and market share growth of the new entrants have removed the dominant operator's ability to behave independent of its competitors. The regulator has been responsive to these changes in the market, abolishing ex-ante tariff regulation on the dominant operator and phasing out mandatory Type-2 interconnection. As the competitive landscape evolves, so must the regulator's role: from being an advocate to being an umpire of competition. With new entrants gaining a solid foothold across the sector, collusion, anti-competitive behaviour, misinformation and consolidation become real threats to competition in the market. The regulator must make sure that competition is not hampered by such activities.

The proposed general competition law for Hong Kong can be beneficial in several ways. Firstly, it can catalyse improvements to the competition law provisions currently stipulated in the Telecommunications Ordinance; namely informational gathering powers. Secondly, a general law can more comprehensively capture anti-competitive conduct now outside the grasp of the Telecommunications Authority – an increasing trend as fierce competition drives operators to leverage monopoly powers in other industry sectors, bundling and tying arrangements with non-telecom, dominant business groups. The introduction of a new competition law will demarcate a new era for Hong Kong, necessitating the creation of new authorities to deal with non-telecom competition matters, and disciplining the industry when competition regulation becomes the primary regulatory regime for the telecoms sector. If so, we will see more sophisticated competition regulation and decisions – the result of the first true and actively implemented anti-trust regime for Hong Kong.

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