Consultation Paper issued by
The Office of the Telecommunications Authority

Draft Merger Guidelines for
Hong Kong Telecommunications Markets

4 August 2003

Introduction

1. The Telecommunications (Amendment) Ordinance 2003 was published in the Government Gazette on 18 July providing for the legislation to come into operation in two stages. Under the provisions that come into force at the first stage, the Telecommunications Authority (TA) is required to issue guidelines specifying the matters he will take into account in considering mergers and acquisitions under the new legislation. Before publishing the guidelines, the TA is required to consult those who may be affected by the legislation. The TA is publishing the attached draft guidelines for consultation.

2. Following the consultation exercise, the TA will publish a final version of the guidelines which will take account of the views expressed during the consultation. The Secretary for Commerce, Industry and Technology will then publish a notice in the Gazette to bring the substantive provisions of the new legislation into operation on an appointed day. The commencement notice will be subject to negative vetting in the Legislative Council.

3. The draft guidelines seek to explain how the TA will apply and enforce the new legislative provisions. The guidelines set out the analytical framework which the TA intends to adopt to assess the competition effects of a merger or acquisition, including the approach he will use for the crucial step of defining the relevant market. The TA is also required to consider benefits to the public in cases where there is a competition concern and the guidelines set out the TA's proposed approach. Finally, the guidelines explain the procedures which the TA will follow in investigating both proposed and completed mergers.

Timing

4. The TA will allow a period of eight weeks for consultation. After consideration of the comments received, the TA aims to issue the guidelines in the fourth quarter of 2003.

Invitation to Comment

5. Views and comments on this consultation paper should reach the Office of the Telecommunications Authority on or before **29 September 2003**. Any person who submits views and comments should be aware that the TA may publish all or any

part of the views and comments received and disclose the identity of the source in such manner as the TA sees fit. Any part of the submission which is considered commercially confidential should be marked, together with the reasons for such claims. The TA will take such markings into account in making his decision as to whether or not to disclose such information. Submissions should be addressed to:

Office of the Telecommunications Authority
29/F Wu Chung House
213 Queen's Road East
Wanchai
Hong Kong

Attention: Mr. Edward Whitehorn,
Head, Competition Affairs Branch

Submissions should be sent by e-mail to the following address wshng@ofta.gov.hk.

Office of the Telecommunications Authority
4 August 2003

Draft Merger Guidelines
For Hong Kong Telecommunications Markets

1 INTRODUCTION

1.1 These guidelines ("the Guidelines") are issued by the Telecommunications Authority ("TA") under sections 6D(1) and 6D(2)(aa) of the Telecommunications Ordinance (Cap 106) ("the Ordinance") for the purpose of providing practical guidance on section 7P of the Ordinance concerning "changes in relation to carrier licensees" (mergers and acquisitions). The Guidelines are intended to explain how the TA will apply and enforce the provisions of section 7P and in particular, to specify the matters he will take into account when deciding whether any merger or acquisition has, or is likely to have,

(a) the effect of substantially lessening competition in a telecommunications market; and

(b) a benefit to the public and this benefit outweighs any detriment to the public that is, or is likely to be, constituted by any such effect.

The TA will not depart from these Guidelines without providing reasons in writing for doing so.[1]

1.2 The Guidelines will provide a guide to the approach the TA will take in his analysis of mergers and acquisitions that may raise competition concerns. The analysis of any particular merger or acquisition will require consideration of the merger or acquisition against the particular facts of the case and the specific market circumstances.

1.3 The Guidelines state the TA's current views and procedures in relation to the enforcement of the merger provisions. They may be subject to review in the light of changing market circumstances and the emergence of new analytical approaches. The Guidelines should not be seen as a substitute for the Ordinance and anyone who believes that they may be affected by section 7P should consider seeking legal advice.

1.4 In the Guidelines, the terms "mergers and acquisitions", "mergers" and

[1] Section 6A(3)(b)(ii) of the Ordinance

"acquisitions" will, depending on the context, be used interchangeably to refer to the acquisition by a person, either alone or with any associated person, of the beneficial ownership in, or the voting control of, voting shares in a carrier licensee or the power to ensure that the affairs of the carrier licensee are conducted in accordance with the wishes of that person, under the terms of section 7P(16) of the Ordinance.

Overview of the merger provisions of the Ordinance

1.5 The substantive provisions are sections 7P(1) and 7P(6) and (7) of the Ordinance which read as follows:

> *(1) Where, after the commencement of this section, there is a change in relation to a carrier licensee –*
>
> *(a) subject to subsection (1A), the Authority may conduct such investigation as he considers necessary to enable him to form an opinion as to whether or not the change has, or is likely to have, the effect of substantially lessening competition in a telecommunications market; and*
>
> *(b) (where the Authority, after conducting such investigation, forms an opinion that the change has, or is likely to have, the effect of substantially lessening competition in a telecommunications market) the Authority may, by notice in writing served on the licensee, direct the licensee to take such action specified in the notice as the Authority considers necessary to eliminate or avoid any such effect, but the Authority may not issue such direction if the Authority is satisfied that the change has, or is likely to have, a benefit to the public and that the benefit outweighs any detriment to the public that is, or is likely to be, constituted by any such effect.*
>
> *(6) Where there is a proposed change in relation to a carrier licensee, the licensee or any interested person may apply in writing to the Authority for consent to the proposed change.*
>
> *(7) Where the Authority, on receiving an application made under subsection (6)–*
>
> *(a) forms an opinion that the proposed change would not have, or not be likely to have, the effect of substantially lessening competition in a telecommunications market, the Authority shall decide to give consent; or*

(b) forms an opinion that the proposed change would have, or be likely to have, the effect of substantially lessening competition in a telecommunications market, the Authority may decide to–

(i) refuse to give consent;
(ii) give consent subject to the direction that the carrier licensee concerned takes the action that the Authority considers necessary to eliminate or avoid any such effect; or
(iii) give consent without issuing a direction under subparagraph (ii) if the Authority is satisfied that the proposed change would have, or be likely to have, a benefit to the public and that the benefit would outweigh any detriment to the public that would be, or would likely to be, constituted by any such effect.

1.6 A "merger or acquisition" is thus defined within the terms of section 7P(1) or 7P(6) as a "change" in a carrier licensee. The "change" is defined in section 7P(16) as follows:

(16) For the purposes of subsections (1) and (6), there is a change in relation to a carrier licensee if –

(a) subject to subsection (17), a person, either alone or with any associated person, becomes the beneficial owner or voting controller of more than 15% of the voting shares in the licensee;

(b) a person, either alone or with any associated person, becomes the beneficial owner or voting controller of more than 30% of the voting shares in the licensee; or

(c) a person, either alone or with any associated person –

(i) becomes the beneficial owner or voting controller of more than 50% of the voting shares in the licensee; or

(ii) acquires the power (including by the acquisition of voting shares), by virtue of any powers conferred by the memorandum or articles of association or other instrument regulating the licensee or any other corporation or otherwise, to ensure that the affairs of the licensee are conducted in accordance with the wishes of that person.

(17) Subsection (16) (a) does not apply if the person referred to in that subsection, when becoming the beneficial owner or voting controller of more than 15%, but not more than 30%, of the voting shares in the carrier licensee concerned –

(a) either alone or with any associated person, is not, or does not concurrently become, the beneficial owner or voting controller of more than 5% of the voting shares in any other carrier licensee; and

(b) either alone or with any associated person, does not have the power (including by the holding of voting shares), or does not concurrently acquire the power (including by the acquisition of voting shares), by virtue of any powers conferred by the memorandum or articles of association or other instrument regulating any other carrier licensee or any other corporation or otherwise, to ensure that the affairs of such other carrier licensee are conducted in accordance with the wishes of that person.

1.7 The provisions of section 7P come into operation when the "change" in a carrier licensee crosses one of the thresholds set out in the subsection above. There are three tiers of control. The first threshold is the acquisition of more than 15% but not more than 30% of the voting shares of a carrier licensee. However, this will only constitute a change for the purposes of section 7P if the acquirer already holds, or simultaneously acquires, more than 5% of the voting shares in any other carrier licensee or has or simultaneously acquires the power to ensure that the affairs of any other carrier licensee are conducted in accordance with its wishes. The threshold is only crossed when the acquirer "becomes" the beneficial owner or voting controller of the shares and therefore if the acquirer is already the owner or controller of more than 15% of the voting shares, and acquires further shares up to the limit of 30%, there is no "change" in the carrier licensee and section 7P does not apply.

1.8 The second threshold is the acquisition of more than 30% but not more than 50% of the voting shares in a carrier licensee. The provisions of section 7P will only apply if the acquirer is not already the owner or controller of more than 30% of the voting shares.

1.9 The third threshold is the acquisition of more than 50% of the voting shares or the acquisition of the power to ensure that the affairs of the carrier licensee are conducted in accordance with the wishes of the acquirer. Once again, the threshold is only crossed if the acquirer does not already own or control more than 50% of the voting shares or does not already have the power to determine the affairs of the carrier licensee.

1.10 In all cases, the acquisition of shares will be assessed on the basis of the acquirer and any "associated person" which is defined in subsection (18) by reference to section 2(1) of the Ordinance.

Carrier licensees only

1.11 It should be noted from section 7P(1) that the merger regime will only apply to carrier licensees. "Carrier licensee" is defined in section 2 of the Ordinance. Carrier licensees are in essence network operators that establish and maintain transmission facilities (by wired or wireless means) that carry "communication" (also defined in section 2 of the Ordinance) between locations that are separated by public streets or unleased land. They include the local and external fixed network operators[2] and mobile network operators.

Actions of the TA

1.12 Without limiting the general nature of the action the TA may direct, section 7P(4) empowers the TA to direct a carrier licensee to modify the changes in ownership or control that are of concern. Failure to take any directed action would constitute a contravention of the Telecommunications Ordinance. Administrative sanctions available under the Telecommunications Ordinance (including directions, financial penalties, cancellation, withdrawal or suspension of licences) may be imposed upon the carrier licensee.

No requirement to notify mergers

1.13 There is no requirement to notify changes of ownership or control, under the merger provisions of the Ordinance, although there may be an obligation to inform the TA under the conditions of a licence, for example. However, it is always open to the parties to a proposed merger to approach the TA to discuss the implications of the transaction and obtain informal advice (which would not be binding on the TA) on the transaction, on a confidential basis if necessary, or to submit a formal request for the TA's consent to the proposed change under section 7P(6).

1.14 The application of section 7P(1) is *ex post* in that it is applied after the merger or acquisition has been completed. While an *ex post* regime minimises the compliance burden, there are difficulties in "unscrambling" a completed merger under such a regime if action is required to overcome any anti-competitive effects. Accordingly, section 7(6) provides for the licensee to seek on a voluntary basis *ex ante* consent to a proposed merger or acquisition before it is

[2] Including operators of fixed networks under Fixed Carrier (Restricted) Licences held by television programme services licensees for the transmission of their own programmes, and satellite operators.

progressed. Under section 7(7), the TA may give consent, refuse to give consent, or give consent subject to the direction that the carrier licensee takes such action that the TA considers necessary to eliminate or avoid any anti-competitive effect. The powers of direction are similar to those under section 7(4).

Appeals

1.15 An opinion, direction or decision made by the TA under sections 7P(1) or 7P(6) is subject to appeal to the Telecommunications (Competition Provisions) Appeal Board. Any appeal must be lodged not later than 14 days after the opinion, direction or decision became known (or ought reasonably to have become known) to the person making the appeal. However, only the parties to the transaction in question have the right to appeal. These include the carrier licensee in respect of which the opinion, direction or decision was formed, issued or made, the acquirer and the applicant for consent under section 7P(6). The TA's opinions, directions and decisions are also subject to judicial review.

Scope of application

1.16 If the combined market share in the relevant market of the parties to the merger is **less than 15%**, the TA takes the view that it is unlikely that there will be a need to carry out a detailed investigation or to intervene.

1.17 While the TA is unlikely to further assess any mergers which fall below this threshold, he does not categorically rule out intervention. Occasionally, but not often, such mergers may still raise competition concerns, for example where it involves a firm with vertical relationships into another market where the firm has market power.

1.18 However, where the combined market share of the parties to the merger is **40% or more**, it is likely that the TA will wish to make a detailed investigation of the transaction. In cases where the combined market share is between 15% and 40%, the TA will decide on a case by case basis, in the light of the facts of each case, whether a detailed investigation is required.

1.19 The calculation of the relevant market shares is explained in detail in the following sections.

Financial transactions which do not raise competition concerns

1.20 In the absence of other considerations, the TA will normally take the view that the following transactions do not give rise to competition concerns:-

(a) the acquisition of the securities in a carrier licensee or any of its associated corporations on a temporary basis by -

(i) an authorized institution within the meaning of the Banking Ordinance (Cap. 155);

(ii) an insurer who is authorized within the meaning of the Insurance Companies Ordinance (Cap. 41); or

(iii) an exchange participant within the meaning of the Securities and Futures Ordinance (Cap. 571), or a person licensed or exempt to carry on a business in dealing in securities or securities margin financing under Part V of that Ordinance,

if:

(iv) the securities are acquired with a view to reselling them; and

(v) the authorized institution, insurer, or exchange participant, registered institution or licensed corporation (as the case may be) -

(A) does not exercise voting rights in the securities; or

(B) exercises the voting rights in the securities only with a view to preparing the disposal of all or part of the securities of the carrier licensee or associated corporation (as the case may be), or of the assets of the carrier licensee or associated corporation (as the case may be), and the disposal takes place -

(I) within one year of the date of the acquisition; or

(II) where the TA is satisfied that the disposal is not reasonably possible within one year of the date of the acquisition, within such further period as the TA considers appropriate;

(b) the acquisition of the voting control of the voting shares in a carrier licensee by the liquidators and receivers of the carrier licensee by virtue of their offices;

(c) the acquisition of holdings in a carrier licensee or any of its associated corporations by a financial holding company if -

(i) the sole object of the financial holding company is to acquire and manage holdings in any corporation and to turn them into profit without involving itself directly or indirectly in the management of such corporation; and

(ii) the voting rights in respect of the holdings in the carrier licensee or associated corporation (as the case may be) are exercised, in particular in relation to the appointment of members of the management and supervisory bodies of the carrier licensee or associated corporation (as the case may be), only to maintain the full value of those investments and not to determine directly or indirectly the competitive conduct of the carrier licensee or associated corporation (as the case may be).

"securities"（證券）has the meaning assigned to it by section 1 of Part 1 in Schedule 1 to the Securities and Futures Ordinance (Cap. 571).

1.21 In general, the TA will not be concerned about changes in the beneficial ownership in, or the voting control of, voting shares in a carrier licensee, which are not of a lasting nature. Changes in control which are purely transitory and effected only to facilitate the merger agreement, will not normally have any effect on competition in the market.

Overlapping provisions

1.22 It is the TA's intention, as far as possible, to provide a clear merger framework and to remove uncertainties about the potential application of other provisions that might apply to mergers and acquisitions. Consequently the TA will usually rely primarily on the provisions of section 7P of the Ordinance when considering mergers and acquisitions. When a transaction falls within the scope of section 7P, the TA will not apply any of the following provisions to the same transaction:

- sections 7K and 7L of the Ordinance;
- equivalent provisions to sections 7K and 7L in licences issued under the Ordinance prohibiting anti-competitive conduct and abuses of dominance.

1.23 However, these provisions remain in force and licensees remain obliged to comply with the provisions. While not applying the provisions to the merger transaction itself, the TA will continue to enforce the provisions in respect of any subsequent conduct of the licensees.

1.24 In respect of non-carrier licensees, the TA takes the view that mergers are unlikely to raise any competition concerns and therefore he would not normally consider applying the above provisions to the transaction.

Ancillary restraints

1.25 Non-compete covenants will be dealt with under section 7P to the extent that they are an integral part of the merger transaction, or under section 7K as potentially anti-competitive conduct, if they are not an essential term of the agreement resulting in a change of ownership or control of a carrier licensee.

2 ANALYTICAL FRAMEWORK

2.1 Section 7P(1) of the Telecommunications Ordinance provides for regulatory control over a merger or acquisition that "…has, or is likely to have, the effect of substantially lessening competition in a telecommunications market". It follows that that an assessment of a merger or acquisition for any anti-competitive effects requires:

- an identification of the relevant market;
- a study of the state of competition within that market; and
- an assessment of whether the change has, or is likely to have, the effect of substantially lessening competition within that market.

2.2 The promotion of competition has an economic objective: to increase economic efficiencies and, ultimately, consumer welfare (typically in the form of lower prices, higher output, wider choice and better quality). This economic objective may be subverted by anti-competitive mergers or acquisitions.

2.3 Given the economic objective, an economically meaningful framework for the assessment of a merger is needed. This is provided by defining the relevant market and making a competition assessment within that market. It is an analytical framework that has been widely adopted by competition authorities.

2.4 Under section 6D(2)(aa) of the Ordinance, the TA is required to issue these Guidelines specifying the matters which he will take into account before forming an opinion on a merger. The matters to be taken into account are to include the factors set out in Schedule 2 to the Ordinance, which lists the following:

"1. The height of barriers to entry to a telecommunications market.

2. The level of market concentration in a telecommunications market.

3. The degree of countervailing power in a telecommunications market.

4. The likelihood that the change would result in the carrier licensee or interested person being able to significantly and substantially increase prices or profit margins.

5. The dynamic characteristics of a telecommunications market, including growth, innovation and product differentiation.

6. The likelihood that the change would result in the removal from a telecommunications market of a vigorous and effective competitor.

7. The extent to which effective competition remains or would remain in a telecommunications market after the change.

8. The nature and extent of vertical integration in a telecommunications market.

9. The actual and potential level of import competition in a telecommunications market.

10. The extent to which substitutes are available in a telecommunications market."

2.5 When the TA forms an opinion that a completed merger has, or is likely to have, the effect of substantially lessening competition, the TA may not issue a direction to the parties to take any action in relation to the merger if he is satisfied that the merger has, or is likely to have, a benefit to the public which outweighs any detriment to the public resulting from the substantial lessening of competition. Similarly, on an application for prior consent to a proposed merger, the TA may decide not to issue a direction to the parties to eliminate or avoid the effect of a substantial lessening of competition, if he is satisfied that there is an overall benefit to the public.

3 MARKET DEFINITION

3.1 The concept of a market is a term of art in competition analysis. Competition is a process of rivalry between firms, where each firm constrains the prices of other firms by supplying closely substitutable products: if a firm attempts to raise its price, consumers will switch to the cheaper alternative and make the price rise unprofitable.

3.2 Firms that constrain each other through the supply of close substitutes are said to compete in the same market. The process of market definition thus involves the identification of all sources of competitive constraints, that is, all sources of closely substitutable products. In other words, it identifies the field of competition.

3.3 The described approach to market definition is a conceptual framework and is not intended to be applied mechanically. Accordingly the TA will not necessarily follow each step indicated below in each case. The TA will look at the evidence which is relevant to the case in question (and, to an extent, will be constrained by the evidence available).

3.4 In particular it may be clear in certain cases that, although there is potentially more than one market definition, on any sensible market definition, the merger or acquisition would not give rise to a substantial lessening of competition. In such cases, it will not normally be necessary to establish which of the potential market definitions is correct.

The hypothetical monopolist test

3.5 The "hypothetical monopolist" test is generally accepted to be an appropriate tool for defining a market. Under this approach, a market is defined as a product (or group of products) supplied in a particular geographical area such that a hypothetical profit-maximizing firm that was the only present and future supplier of that product (or group of products) in that area would be able to impose a small but significant and non-transitory increase in price ("SSNIP").

3.6 It is commonly referred to as the "SSNIP" test. Under this test, a price increase of five to ten per cent lasting for the foreseeable future has been widely used as the standard for measuring the magnitude of a small but significant and non-transitory increase in price. Depending on the circumstances of each merger case, however, a higher or lower figure than five to ten per cent may be used. It is difficult to quantify in a general sense how long is the "foreseeable future" but one year is considered to be a reasonable period. In other words, substitution responses that would undermine a price increase would be expected to take place before one year was out. This period is a rough rule of thumb however, and may vary depending on the circumstances of the case.

3.7 The market can be viewed as the narrowest product category, supplied in the smallest geographical area, over which a hypothetical monopolist could exercise market power (that is, profitably maintain a SSNIP). This would only be possible if all sources of close substitutes have been included in the definition of the market. Substitutes do not have to be identical products to be included in the same market.

3.8 The process of establishing the relevant market boundaries in respect of a merger or acquisition starts with:

- those products (either goods or services) supplied by one or both of the merging firms over which there is some competition concern; and
- the geographical area within which the products are supplied.

3.9 The product is described in terms of particular characteristics or features from which one can assess the extent of its substitutability with other products. This usually includes a description of the functionality or the purpose for which it is supplied (for example, a local circuit to carry telecommunications services) and the functional level in the supply chain at which it is supplied (for example, at the wholesale level to service providers or at retail level to end-customers). Products may be defined by reference to time (for example, telephone calls at peak and off-peak hours) or particular groups of customers (for example, business and residential customers). The geographical area of supply will vary depending on the circumstances of the case but may, for example, be on a wide global or regional basis or limited to supply within the Hong Kong Special Administrative Region.

3.10 This description establishes the initial market boundary in both the product and geographic dimensions. In determining whether a hypothetical monopolist would be in a position to impose a price increase or otherwise exercise market power in relation to the product so described, it is necessary to assess two types of responses:

- the likely response of consumers to a price increase ("**demand-side**" responses): a price increase could be made unprofitable by consumers switching to other products; and
- the likely response of suppliers to a price increase ("**supply-side**" responses): a price increase could be made unprofitable by other firms switching their production lines at relatively short notice to supply switching customers.

3.11 If in response there is a level of substitution that is large enough to make the price increase unprofitable, these products are considered to be close substitutes and are identified as being in a group of closely substitutable products that are supplied in the same market. The responses to a price rise by a hypothetical monopolist supplier of this new expanded group of products are then assessed and so on and so forth.

3.12 In this fashion, the initial market boundary is progressively extended to include all those sources of close substitutes that would make it non profit-maximizing for a hypothetical monopolist to impose a price increase. The TA will typically then consider the relevant market to be the smallest group of products that satisfies the SSNIP test.

3.13 The market should not normally be expanded beyond this group of products. If the market is defined too broadly then any anti-competitive effect of a merger is likely to be understated because of the inclusion in that market of firms and products that do not effectively constrain the exercise of market power. Conversely, a market defined too narrowly is likely to overstate the anti-competitive effect. This is particularly relevant in the telecommunications sector where services may be bundled together which cannot economically be provided separately. Attempts to define such individual services as separate markets could over emphasise any anti-competitive effects (this is further discussed in the section on “cluster markets” below).

3.14 The process described above focuses on defining the boundaries of the market in its product dimension. An analogous process is used for defining the geographic boundaries: the market boundaries are gradually expanded to include those geographic areas where consumers may source close substitutes and from where firms may supply close substitutes in the event of a price increase.

3.15 A number of points of detail will now be discussed in relation to market definition.

Evidence of substitution responses

3.16 Being a hypothetical test, of course the necessary evidence is unlikely to be available from the market on demand-side and supply-side responses to a small but significant and non-transitory increase in price by a hypothetical monopolist. However, the importance of the SSNIP test is that it imposes a disciplined objective framework on the analysis of market definition in which the inquiries are focussed upon and relevant to the objective of assessing whether certain conduct substantially lessens competition.

3.17 In this way, markets are not arbitrarily defined, for example, by simply referring to some characteristic of the product that may be different to other products. This may be the first step of the inquiry but in this example there is no progression to the crucial question of whether, from the consumer perspective, these may be close substitutes despite the differences.

3.18 Nonetheless, despite the hypothetical nature of the test, evidence can be obtained from which one can draw reasonable inferences about substitution possibilities and, hence the boundaries of the relevant market. In applying the SSNIP test and assessing substitution possibilities, the TA will take into account relevant evidence, including:

- past evidence that customers have switched between telecommunications service suppliers in response to relative changes in price or in other competitive dimensions (such as quality, service levels, innovation, etc);
- past evidence that suppliers of telecommunications services have responded to the prospect of customers switching suppliers in response to relative changes in price or in other competitive dimensions;
- evidence that potential suppliers of telecommunications services can rapidly respond and supply a close substitute service in response to relative changes in price or in other competitive dimensions without incurring significant investment costs (see discussion below on supply-side substitution and market entry);
- evidence on the timing and costs of switching, as incurred by both consumers and potential suppliers; and
- in relation to wholesale markets, evidence that a reseller is influenced by downstream competition to switch between wholesale suppliers because a wholesale price increase cannot be passed on.

Price discrimination – different consumer groups

3.19 Price discrimination is defined as the practice of charging customers different prices for the same service when the price differences are not attributable to differences in cost. Profitable price discrimination is only feasible under the following conditions:

- the supplier must have some market power in at least one market for, in a competitive market, prices would be driven down to a uniform competitive level;
- the supplier must be able to divide its customers into groups (for example, by different price elasticities of demand or by different geographic locations); and

- the supplier must be able to prevent or limit resales by customers who pay the lower price to those who pay the higher price (in other words, arbitrage must not be possible).

3.20 In effect, a price discriminator is taking advantage of the fact that he can increase price above the price for the same product in another market without losing sales in the former market.

3.21 The logic and language of successful price discrimination is very much the logic used in the SSNIP test to determine relevant markets. Indeed, the existence of the ability to successfully price discriminate is generally taken as evidence that the separate customer groups in question correspond to separate relevant markets on the basis that a price increase in one is not constrained by switching to the other.

3.22 Accordingly, the TA will presume that, where price discrimination would be profitable for a hypothetical monopolist, it is indicative of separate markets corresponding to the separate groups of customers targeted by the hypothetical monopolist.

3.23 The TA accepts that price discrimination may not always be profitable when the necessary conditions are lacking. The presumption can therefore be rebutted by the presentation of evidence that there is no market power over a separate group of customers; customers cannot be divided into groups; and resale is possible.

Product differentiation

3.24 The SSNIP test does not require that all close substitute products included in a market should have the same price. It is possible for a low-quality product with a relatively low price to be an effective demand-side substitute for a high-quality product that is offered at a relatively high price. Where they are effective substitutes, this is referred to as product differentiation within a market.

3.25 It is a feature of telecommunications markets that some basic services such as telephony have tended to become commoditised. To differentiate such services and add value, firms have increased quality, added innovative new services and charged an appropriate premium.

3.26 The relevant issue under the SSNIP test is the degree of constraint imposed on the pricing decisions of the hypothetical monopolist. If a price increase relative to another product's price is made unprofitable because of switching responses, then that other product is considered to be a close substitute despite the product and price differentiation. Indeed, the SSNIP test should be more precisely described as an increase in "relative" price test.

Cluster markets

3.27 A "cluster" market is a market where competition revolves around the joint supply by one firm of economically distinct but complementary products because of consumer convenience in acquiring them jointly and economies of scope in supplying them jointly in a bundle. An efficient firm supplying the components separately would not be able to compete on a cost basis.

3.28 The concept of "cluster" markets has been particularly used in other jurisdictions to identify markets in the banking and health care sectors where a number of different products are traditionally sold from the one "shop". It is considered to be relevant in relation to telecommunications in view of network interconnectivity and technological convergence, both of which tend to facilitate the joint supply of a number of telecommunications services.

3.29 On the demand-side of a "cluster" market, the costs of unbundling are such that customers find it cheaper to accept a small but significant price increase for the bundled product rather than acquire the components of the bundle separately. These costs typically arise from the additional search, transaction and switching costs involved.

3.30 On the supply-side, suppliers of the component products in a bundle incur higher costs in supplying the components separately. The economies of scope mean that the supplier can supply the bundle at a lower price than supplying the component parts separately.

3.31 In relation to defining a "cluster" market, a hypothetical monopolist supplier would be able to profitably impose a small but significant and non-transitory increase in price on the bundle without consumers switching to separate acquisition of the components in the bundle.

3.32 On the other hand, if the costs for a customer in buying the components separately are relatively low and there are no significant diseconomies in separate supply, customers and firms buying and supplying separately may be able to defeat a small but significant and non-transitory increase in price for the bundle. If they do, the separate components constrain the price of the bundle and it would be appropriate to consider the components as being in separate markets. Even though bundled supply may be a feature of markets, the mere existence of the bundles does not necessarily define the market if separate supply and acquisition can be shown under the SSNIP test to constrain the price of a bundle.

3.33 In deciding whether a "cluster" market exists, the TA will have regard to a number of factors, including whether:

- unbundling imposes identifiable costs on consumers;

- unbundling costs are substantial relative to the price paid for a bundle;

- demand for the components in a bundle is correlated among consumers or, alternatively, is focussed on one core component; and

- a supplier's market share for one component responds in accord with the market share for the other in response to a price change.

3.34 The concept of "cluster" markets was used by the TA in his Statement of 1 June 2002 on the Application by PCCW-HKT Telephone Limited for Declaration of Non-Dominance in the Market for External Bandwidth Services. The issue was whether the market for external bandwidth services should be considered a "cluster" market that included local connectivity to customer premises in Hong Kong, or whether they should be considered to be separate markets.

3.35 In forming the view that it was not a "cluster" market, the TA took into account the following factors:

- PCCW was offering a "mixed" bundle where there is a choice between taking the bundle or taking the component of external connectivity only (or even deciding to not take the bundle or the component);

- the two services were offered to corporate businesses where it was considered that the costs of unbundling them was likely to be relatively small compared to their total outlays for telecommunications and there were incentives to "shop-around" for the separate components if the price of the bundle is not "right"; and

- the core component of external bandwidth services is obviously the external circuit. Business customers were essentially demanding this component, with local connectivity being a necessary but secondary consideration after the external core. Accordingly, demand and hence competition were considered to be focused more around the external component than the local component.

The competitive price level and the "cellophane fallacy"

3.36 Under the SSNIP test, an increase in price is assumed to be an increase above the competitive price level prevailing in the market. Of course, not all markets are perfectly competitive. In monopolistic or oligopolistic markets characterised by co-ordinated activities (which can occur in deregulated telecommunications markets), the prevailing market price is likely to be higher than competitive levels and may approach the limit of what the market will bear.

3.37 In such circumstance, it may not be possible for even a hypothetical monopolist to further increase prices. Of course, this lack of an ability to increase prices does not reflect the availability of close substitutes around which the market boundaries should be drawn. Such a market would be inappropriately broad in view of the market power already present in a more narrowly defined market. Accordingly, in markets that are already less than competitive, the TA will exercise care in determining the appropriate base price so that the correct market boundaries are drawn.

3.38 The dangers of using current prices as the base price for market definition where that price reflects limit pricing was highlighted by a US case involving cellophane products (*United States v E.I. du Pont de Nemours & Co* [1956] 351 US 377). Mistakenly applying current prices that are above competitive levels as a base price has become known as the "Cellophane fallacy" after the case.

3.39 Bearing in mind the Cellophane fallacy, the TA will exercise care in determining the appropriate base price in markets that are already less than competitive. Telecommunications markets can raise particular issues due to the fact that prices or other related prices may be regulated. Nevertheless, even if pricing controls are in place, it may still be the case that some prices are above competitive levels. In particular, the TA will not automatically adopt the current prices in the market as the base price where there is a concern that the current prices may reflect market power. If there is considered to be market power, the TA will use a price more reflective of a competitive price. Where future prices can be predicted with reasonable reliability, the TA may use the likely future price without the merger as a relevant base price in defining the appropriate market.

Sufficiency of demand-side substitution effect

3.40 As mentioned, a product is considered to be in a market if there is a "large enough" level of switching to that product or other products to make a price increase for another product unprofitable.

3.41 An effective substitution effect does not depend on all customers switching. Some may remain loyal to the brand, some may even be unable to switch for various reasons. Such customers are often referred to as "captive" customers. However, there may be another group of customers who are prepared to switch in response to a price increase. Such customers are sometimes referred to as "marginal" customers in that they are close to the margin in relation to switching.

3.42 So long as there is a sufficiently large enough group of marginal customers who, through the switching of their custom to another product make a price increase unprofitable, that substitution effect is sufficient to conclude that the products being switched to are in the same market.

Chains of substitution

3.43 In certain circumstances, apparently distinct products which are not considered to be close substitutes by customers may be considered to be in the same market through a chain of substitution effects (also referred to as “ripple effects”).

3.44 For example, while A and C may not be close substitutes, the price of A may constrain the price of C because A and B are substitutable and B and C are substitutable. If there are a sufficient customers at the margin (the “marginal” customers referred to above) between A and B and the margin between B and C who consider the respective products close substitutes, then the price of A will constrain the price of C and A, B and C would be considered to be in the same market.

3.45 Where relevant, the TA will look at possible chains of substitution when defining markets so as to ensure that markets are not defined too narrowly (for example, by mere reference to the descriptive labels “wholesale” and “retail”). However, the TA will also look carefully to ensure that markets are not defined too widely (for example, by mere acceptance of claims that there are no breaks in a chain when in fact there is no significant substitution between two adjacent products in the chain).

Supply-side substitution v. market entry

3.46 Confusion sometimes arises between what is considered to be a supply-side substitution (a factor relevant to market definition) and entry into a market (a factor usually taken into account in competition analysis once the market has been defined).

3.47 As indicated above, supply-side substitution concerns the ability of firms to switch their production lines at relatively short notice in response to a price increase and supply a close substitute to the product in question. Firms with this ability may not actually be in the market. However, if they are considered likely to enter rapidly in response to a price increase and without incurring significant sunk costs, they are considered to be market participants because of the constraints that their rapid entry places on a hypothetical monopolist.

3.48 On the other hand, market entry is considered to involve significant sunk costs of entry and exit. Sunk costs are capital costs that can only be used in the production of the product in question and which, once incurred, cannot easily be recouped. An example in telecommunications is the cost of network facilities, the cost of which cannot easily be recouped if the investing firm decides to exit the market.

3.49 It is acknowledged that there can be a fine line between supply-side substitution and new entry. Both are forms of market entry and both represent a constraint on market power. At the end of the day, the important thing is to take them both into account at some stage in the analysis. In the interests of consistency of analytical approach, the TA will assess the constraining effect of any potential market entry when assessing the effect on competition between closely substitutable products in the market once that market is defined by reference to, *inter alia*, supply-side substitution possibilities.

Previous cases

3.50 In many cases, a market may already have been investigated and defined by the TA or another competition or regulatory authority. Sometimes, earlier definitions can provide a useful shortcut. However, in the light of the dynamic nature of telecommunications markets, although previous cases can provide useful information, the market definition used may not always be the correct one for future cases. Technological changes may make substitution between products easier or more difficult and, therefore, broaden or narrow the market definition.

Temporal markets

3.51 As well as product and geographic characteristics, a market may also be defined by reference to time. Temporal markets might include the provision of peak and off-peak services (for instance, where customers are not able to substitute between the time periods) or inter-generational products (where customers defer expenditure on present products because they believe innovation will soon produce better substitutes). Temporal markets are, to a certain extent, an extension of the product market, e.g. the supply of product X at a certain time.

4 COMPETITION ANALYSIS

4.1 Having defined the market by using the analytical concept of the hypothetical monopolist, the issue now is to discover the actual level of competition within that market given that, after all, the hypothetical monopolist is only an abstraction.

4.2 The level of competition in a market is very much influenced by the structural features of the market such as market shares, market concentration, barriers to entry, vertical integration, buying power and import competition. A merger, by its nature, will change the market structure (for example, by changing market shares).

4.3 A non-structural factor that may be particularly relevant is sometimes termed the "strategic behaviour" of incumbent firms. Such strategic behaviour is directed at altering the market structure itself (for example, by raising barriers to entry) and in this sense goes beyond the normal competitive rivalry between firms.

4.4 Accordingly, the TA will take into account these structural factors, and other factors such as strategic behaviour, when assessing the level of competition in a market and the likely effect the merger would have on that level of competition. In this light, merger regulation under section 7P can be seen as regulating market structure. It does not directly regulate market conduct or behaviour, which is the province of sections 7K (anti-competitive conduct) and 7L (abuse of dominance).

4.5 Before entering into a discussion of the particular merger factors that the TA will take into account in analysing the competitive effects of a merger, four analytical issues that are considered relevant to any merger analysis are discussed.

Protection of the process, not the competitor

4.6 Competition is essentially a dynamic process in a market rather than a static situation where particular conduct may competitively disadvantage a particular competitor at a particular time. Competition by its very nature is a deliberate and ruthless process as competitors jockey for position and seek to injure each other by taking sales away. This is as true for mergers as it is for any other forms of market conduct.

4.7 That a particular competitor may be injured or competitively disadvantaged at a particular time does not necessarily lessen competition in a market, let alone substantially (the test of substantiality is discussed below). Indeed, it may be the epitome of the competitive process. As part of the process, disadvantaged competitors would be expected to respond to any competitive initiatives in the market. It is only when they are unable to respond as a direct consequence of the conduct in question that concerns arise about the effects on the competitive process in a market.

Substantiality test – creation of market power

4.8 The TA is required to form an opinion whether a merger substantially lessens competition. While it is not possible to remove the exercise of judgment from merger analysis, substantiality is a subjective test that does not lend itself well to economic analysis.

4.9 The term is useful in avoiding application of the regime to *de minimus* situations where there are barely any discernable effects on the competitive process, such as may occur when there is day-to-day injury to individual competitors but the competitive process remains strong.

4.10 However, beyond distinguishing the *de minimus* situations, the TA will interpret a substantial lessening of competition in terms of the creation or enhancement of market power. As now discussed, this approach is an economically rational approach.

4.11 The antithesis of competition in a market is market power. Instead of firms constraining each other, there is a firm that is unilaterally (or a group of firms in co-ordination) not constrained by other firms in its (or their) ability to increase its price above competitive levels for a significant period of time. Indeed, this scenario reflects the standard definition of market power used by competition authorities: a firm has market power if it is able to act without competitive constraint in a market.

4.12 Adopting this rationale, the TA will consider whether a merger creates or enhances market power to assist in assessing whether a merger substantially lessens competition in terms of section 7P of the Telecommunications Ordinance.

4.13 This approach finds precedent in the US 1992 Horizontal Merger Guidelines. Under section 7 of the Clayton Act, a merger is prohibited if its effect may be "…substantially to lessen competition". In full knowledge of this substantial lessening test, the US Department of Justice and the Federal Trade Commission state in the Guidelines (in section 0.1) that the unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or facilitate its exercise.

4.14 Article 2(3) of the European Commission's Merger Regulation, which deals with mergers that "…create or strengthen a dominant position as a result of which effective competition would be significantly impeded". The concept of dominance is similar to that of market power in the sense that they both relate to the ability to act independently without competitive constraint.

4.15 Finally, the Australian Merger Guidelines view market power and a substantial lessening of competition as different sides of the same coin. Australia also has a "substantial lessening" test. Observing (in paragraph 5.6) that firms with market power have discretion over their price and output decisions and competitive firms are compelled to perform by the discipline of the market, the Guidelines state that competition is inhibited where the structure of the market gives rise to market power. "Substantial" in the Australian context has been defined as meaning "an effect on competition which is real or of substance, not one which must be large or weighty"[3] and, accordingly, is regarded as a relatively low threshold.

Unilateral v. co-ordinated exercise of market power

4.16 A merger may lessen competition in two ways:

- by enabling the merged firm to exercise market power unilaterally; or
- particularly in oligopolistic markets, by increasing the potential for the co-ordinated exercise of market power, either overtly or tacitly, by the remaining competitors.

4.17 The former case represents the typical case of the creation of market power. In the latter case, with a reduction in the number of firms operating in a market, the market power is created by overtly reaching agreement on the terms of co-ordination, by tacitly signalling intentions to other market participants, or by engaging in conscious parallelism.

4.18 The exercise of co-ordinated market power depends crucially on reaching profitable terms of co-ordination and being able to detect and punish "maverick" firms who have an economic incentive to not follow co-ordinated action. Conditions conducive to co-ordination typically include concentrated markets, product homogeneity and visible pricing.

4.19 On the other hand, a firm is more likely to be a "maverick" if it has excess capacity (currently a feature of some telecommunications markets) and low incremental costs (thus making it profitable to expand capacity). It is a feature of network industries, including telecommunications, that services which are provided over networks tend to have low incremental costs. However, any excess capacity amongst the remaining co-ordinated firms may be used as an effective weapon to punish a "maverick" firm.

4.20 Predicting the exercise of co-ordinated market power is more difficult than predicting the exercise of unilateral market power because there is the added uncertainty of predicting whether market conditions are conducive to reaching

[3] Trade Practices Legislation Amendment Bill 1992: Explanatory Memorandum, para 12, p 4

terms of co-ordination and punishing "mavericks".

With-and-without test

4.21 By its nature, an assessment of whether a merger substantially lessens competition is concerned with the likely effect of the merger on competition in the future.

4.22 To assess whether competition has been substantially lessened by a merger, the TA will employ a "with-and-without" test. That is, the level of competition that exists and would be likely to exist in a market without the merger will be assessed and compared with the likely level of competition in the future were the merger to proceed.

4.23 The particular factors that the TA will take into account in analysing the competitive effects of a merger are now discussed.

Market share and market concentration

4.24 Market share refers to the share of a market that a particular firm has. It is usually measured in terms of sales volume or revenue. The latter is a particularly useful indicator of market shares in markets characterised by product differentiation and brand loyalty. In telecommunications, the number of subscribers, call minutes, data volume, etc. are obvious measures of sales volume. Transmission capacity or bandwidth may be a relevant form of volume measurement particularly when the transmission service is largely commoditised or undifferentiated. Capacity or reserves may also be useful as a measure of market share in markets where there is volatility in market shares measured in terms of sales volume or revenue.

4.25 Market concentration refers to the degree to which a market is dominated by a small number of large firms or made up of many small firms. In theory, the more evenly spread the market shares and the greater the numbers of firms, the more competitive the market. A merger which, by definition, combines market shares and increases the level of market concentration is obviously likely to lessen the level of competition. The question is: by how much?

4.26 High market shares and concentration levels as a result of a merger are generally necessary but not sufficient conditions for the creation or enhancement of market power. On the other hand, a merged firm with only small market share in a relatively un-concentrated market would not normally be able to exercise market power.

4.27 As information on market shares and concentration levels is often readily available for a pre-merger situation, thresholds on market shares and concentration levels are a relatively low-cost means of screening-out mergers that are not likely to lessen competition. Post-merger information by its nature is going to be more subjective. As a starting point, post-merger market shares and concentration ratios will be estimated on the basis of historic sales patterns and trends. This is more informative than considering market shares at a single point in time (which might hide the dynamic nature of the market). The TA will then consider any submissions as to how these trend lines may vary, such as through new transmission capacity coming on stream, the introduction of new innovative services or the issuing of new telecommunications licences.

4.28 The actual volume or revenue measure used for market share will depend on the characteristics of the product in question. For example, retail revenues, call minutes or numbers of fixed telephone lines or subscribers are possible measures for measuring market share of fixed public switched telephone network operators, if that is the relevant market. As another example, the TA in his Statement of 15 March 2002 on the Application by Reach Ltd for Declaration of Non-Dominance in the Market for External Bandwidth Services identified the following potential measures of market share:

- revenue;
- activated capacity (the capacity of external circuits actually being used by customers);
- equipped capacity (the capacity of external circuits, equipped with the necessary termination equipment so that the capacity is readily available);
- total available capacity (activated, equipped and remaining capacity – for example, unlit fibre); or
- upgradable capacity (available capacity after upgrading – for example, by installing dense wavelength division multiplexing (DWDM) transmission technology).

4.29 The TA did not consider that it was necessary to be conclusive on the appropriate measure but noted that a revenue measure was not appropriate for a market characterised by bulk sales of an increasingly commoditised product. The TA further noted that the measures of activated or equipped capacity can be subject to volatile swings due to the signing of new large capacity contracts and, accordingly, undue weight should not be put on market share information at a given point in time. The choice of measure may also be constrained by the availability of reliable data.

Removal of a vigorous and effective competitor

4.30 By its nature, a horizontal merger will usually remove a competitor. However, the resulting higher market shares and concentration levels are necessary but not sufficient conditions for the creation or enhancement of market power. A factor which may provide guidance on whether market power is created or enhanced is whether the merger results in the removal of a vigorous and effective competitor.

4.31 The more significant the competitive conduct of one or both of the parties to the merger, the greater the likely anti-competitive effect of the merger. If one or both of the parties have been particularly competitive in the market, the TA will be concerned about the likely adverse effect on competition if one of the parties disappears from the market.

4.32 Beyond simply removing a vigorous and effective competitor, the merger may create a market structure which is conducive to co-ordinated action or tacit collusion. Vigorous and effective competitors, otherwise known in this context as "maverick" firms, serve to undermine attempts to co-ordinate conduct in a market. The role of "mavericks" has been discussed above in respect of the unilateral and co-ordinated exercise of market power.

Extent of effective competition remaining

4.33 In deciding whether a merger has or is likely to have the effect of substantially lessening competition in a telecommunication market, the TA will consider the extent to which effective competition remains or would remain in the market after the merger. In particular, the TA will consider the potential impact of the merger on factors such as price levels, the number of suppliers in the market and the level of product innovation. The extent to which effective competition remains after the merger will be dependent upon the change in the structure of the market brought about by the merger.

Barriers to entry

4.34 An important structural factor influencing the level of competition in a market is the height of barriers to entry, for the threat of entry is often viewed as the ultimate regulator of competitive conduct even if the merged firm currently has a high market share.

4.35 Barriers to entry are essentially any market features that place an efficient prospective new entrant at a significant competitive disadvantage to incumbents. They include sunk costs, economies of scale and scope, network effects, strategic behaviour, product differentiation and brand loyalty, essential facilities and regulatory barriers. Sunk costs and economies of scale and scope are particular features of telecommunications. These will be discussed in turn before discussing other types of barriers to entry. In view of the importance of strategic behaviour as a barrier to entry, this will be discussed separately in the following section.

4.36 As discussed in relation to supply-side substitution, market entry in telecommunications involves significant sunk costs of entry and exit. Sunk costs are the costs of acquiring capital and other assets that:

- are uniquely incurred in entering the market and supplying the services in question;
- once incurred, cannot easily be physically recovered and redeployed in another market; and
- cannot be economically recouped within a short period of time (at least one year in view of the time period allowed for supply-side substitution but considerably longer for large infrastructure investments).

4.37 Because of their sunk nature, sunk costs create entry risks which increase with the significance of the costs. In turn, significant risks can create significant barriers to entry. The extent of sunk costs depends on a number of factors such as the proportion of capital involved, how that capital is sourced (for example, equity ownership or lease), the requirements for advertising and promotion to create brand awareness, etc.

4.38 An example of significant sunk costs typically incurred in telecommunications is the cost of network roll-out, a cost which cannot be recovered nor can it easily be recouped if the new entrant decides to exit the market within a short period. Accordingly, firms considering entry into the market with significant sunk costs must assess the profitability of entry on the basis of long-term participation in the market until the “sunk” capital and assets are economically depreciated. In certain circumstances, the cost of providing a new service may also involve costs which cannot be recovered or easily recouped.

4.39 With economies of scale and scope, average costs fall as the supply of services or range of services supplied increases respectively. Falling costs are likely to increase barriers to entry where there are minimum efficient scales of entry.

4.40 When combined with sunk costs and excess capacity, the effect of economies of scale in particular can create significant barriers to entry. Having “sunk” the infrastructure costs, there are incentives for incumbents in situations of excess capacity to reap the economies of scale to drop prices and gain necessary revenue flows. Even without any strategic purpose, such action can significantly deter new entrants (as discussed below, such action may indeed be accompanied with that strategy in mind).

4.41 Closely related to economies of scale are network effects. By its nature, telecommunications is essentially a network industry and a feature of networks is that they generate network effects (or externalities). Network effects arise when the value a consumer places on connecting to a network (as measured by the price one is willing to pay) depends on the number of others already connected to it. They are a form of economies of scale, but on the demand side.

4.42 Network effects generate positive feedback whereby the bigger networks get bigger (and, on the negative side, the weak get weaker). Unrestrained positive feedback can result in the market "tipping" in favour of one competitor and a dominant "winner-takes-all" market outcome. While the interconnection regime under the Telecommunications Ordinance provides for any-to-any connectivity and thus alleviate any negative network effects for new entrants on the demand-side, when combined with economies of scale on the supply side, network effects can create significant barriers to entry.

4.43 Reputational barriers established by brand loyalty to incumbents may add to the sunk costs faced by a new entrant in the form of advertising and promotion costs. The ongoing investment in advertising and promotion that is required to maintain a differentiated product will accentuate sunk costs. The nature and extent of the barriers created by brand loyalty and product differentiation can be conceptualised as an investment in sunk costs that is required to shift demand to an unknown brand and create a new differentiated market niche.

4.44 In some cases, entry to a market might require the use of an essential facility, an asset or infrastructure where: (1) access to it is indispensable in order to compete on the market; and (2) duplication of the facility is impossible or extremely difficult owing to physical, economic or legal constraints, or is highly undesirable for reasons of public policy.

4.45 Denial of access to essential facilities is thus capable of constituting a significant barrier to entry, particularly in telecommunications where access to customers in certain situations has to go through a "bottleneck" or "essential facility". However, the potential for essential facilities to act as a barrier to entry is alleviated by the interconnection regime under the Telecommunications Ordinance.

4.46 Regulatory barriers can create absolute barriers to entry (for example, a moratorium on new licences). Nevertheless, in Hong Kong, from January 2003, all sectors of the telecommunications market have been fully liberalized and there would be no pre-set limit on the number of licences unless physical constraints (such as spectrum availability) exist to limit the number of operators.

4.47 However, there will continue to be restrictions on certain types of new entrants. For example, the TA will not consider granting any fixed carrier licences to those applicants who intend to primarily rely on interconnection to and resell other operators' infrastructure to roll out their network or provide their services. Furthermore, the TA will take into account the financial capability of licence applicants to fulfil the capital expenditure requirement. Such capital requirements may add to the sunk costs of entry. Another example is that the availability of usable spectrum will continue to constitute physical barriers to entry into the market of certain types of mobile networks (e.g. cellular networks).

Strategic behaviour as a barrier to entry

4.48 As discussed, market structure comprises those factors that influence the level of competition in a market. The structure-conduct-performance paradigm (as it has become known) has been traditionally relied upon to analyse the effects on competition of mergers (and other market conduct). In short, "structure" determines "conduct" (the level of competition) which yields "performance" (outcomes, usually measured in terms of efficiency gains or losses).

4.49 The structuralist approach is a static approach in that it focuses on existing market structures. However, there are other non-structural factors which are more dynamic in nature and can be as important in influencing conduct in, and thus performance of, a market. The most important non-structural factor is what is generally referred to as strategic behaviour. Strategic advantages can arise from being in the market first (also know as first-mover advantage). First-mover advantage can allow a firm to shape the way the market develops, for example. by reducing or eliminating entrants to the market.

4.50 As mentioned, strategic behaviour is broadly defined as any actions by a firm to alter the market structure, and so alter the conditions and levels of competition (for example, by raising barriers to entry). As such, it goes beyond the normal tete-a-tete of competitive rivalry between firms.

4.51 An example of strategic behaviour is where an incumbent firm or first mover in the market decides to build excess capacity so as to send credible signals to potential entrants that it could profitably (with economies of scale and low marginal costs) push prices down to levels such that new entrants would not earn sufficient revenue to cover their sunk costs.

4.52 It can be seen from the example that being the incumbent or first mover can create advantages that can be used strategically to create barriers to entry which can be as effective as any traditional structural barriers to entry described in the previous section. They are sometimes described as strategically erected barriers to entry.

4.53 Strategic behaviour may also be directed at competitors currently in the market. For example, rather than raising barriers to entry, it may be used to raise rivals' costs. As discussed in the next section, this may be a direct consequence of a vertical merger. However, as for raising barriers to entry, the strategic behaviour may already exist in the market and a merger can heighten any adverse effect on market structure of strategic behaviour.

4.54 In assessing the likely effects on competition of a merger, the TA will take into account dynamic factors as well as structural factors in assessing the likely effects on competition of a merger.

Vertical integration and vertical mergers

4.55 The issues raised by vertical mergers are very much those raised by vertical integration as a vertical merger is essentially vertical integration through common ownership (the other form of vertical integration being achieved through long-term contractual arrangements).

4.56 Vertical integration (or a vertical merger) is the integration of two functional levels in the supply chain. Vertical integration can often be pro-competitive as it allows firms to generate efficiencies, particularly through savings on transaction costs and the achievement of economies of scale.

4.57 In industries with high sunk costs such as telecommunications, vertical integration can also help reduce the risk of investment. For example, a provider of telecommunications services carried over someone else’s network may wish to integrate upstream into network operation in order to reduce the risk of being held captive to the network owner.

4.58 More fundamentally, a vertical merger is less likely to be anti-competitive than a horizontal merger because in a vertical merger, the two merging firms will generally supply complementary products whereas in a horizontal merger in the same market the parties will supply substitute products.

4.59 However, particularly in telecommunications, competitors at a downstream functional level (e.g. telecommunications service providers retailing to the public) may have to rely on the supply of an input at an upstream level (e.g. reliance on a vertically integrated network provider to carry their services) while at the same time compete with that upstream supplier’s downstream arm.

4.60 Where there is market power at one functional level, there are obvious incentives where there is vertical integration (or a vertical merger) to leverage that market power into the vertically-related market for anti-competitive purposes. In telecommunications, there may be particular advantages in leveraging into technologically tied markets.

4.61 The leverage, for example, may take the form of refusing access to an essential facility that the merged firm has recently acquired control of through the merger to foreclose competition in a "downstream" market where it faces competition. Alternatively, access may be supplied only on discriminatory or competitively disadvantageous terms, thus raising its downstream rivals' costs. However, as mentioned in the section on barriers to entry, the potential for essential facilities to act as a barrier to entry is alleviated by the interconnection regime under the Telecommunications Ordinance.

4.62 To profitably engage in a foreclosure strategy, one must have market power from which to leverage the strategy. Otherwise downstream competitors relying on the upstream facilities firms would simply bypass the facilities and seek better terms elsewhere in the upstream market (unless the market power is exercised through co-ordinated action).

4.63 Accordingly, in assessing a vertical merger for its likely anti-competitive effects, the TA will particularly inquire as to whether:

- there is market power at one or more of the functional levels involved in the merger;
- there are incentives to leverage that market power into a downstream market with the purpose of lessening or foreclosing competition in that market (for example, where the merged firm operates in a competitive downstream market);
- the market power was likely to be leveraged (for example, where raising rivals costs in downstream markets through discriminatory access pricing would be profitable and would lessen competition); and
- the effect was likely to substantially lessen competition in that market.

4.64 It is mentioned above that upstream market power may be exercised through co-ordinated action. In certain circumstances, co-ordinated action at the upstream level can be facilitated by vertical mergers. Indeed, it may be a reason for the merger. This is particularly the case where the merger leads to a high concentration of vertically integrated firms (as noted earlier, a high level of concentration is one of the conditions favourable to co-ordinated action).

4.65 Co-ordinated action at the upstream level may be used for anti-competitive effect in two main ways:

- to raise the costs of non-vertically integrated downstream competitors by co-ordinating the prices of alternative sources of supply; and
- to collude on retail prices.

4.66 Similarly the TA will consider the potential for a vertical merger to lead to a vertically integrated firm controlling important facilities at the downstream level (e.g. means of distribution in the downstream market) and denying access to such facilities to competitors or granting access to competitors on discriminatory terms, thereby affecting competition in the downstream market.

Prices and profit margins

4.67 The TA will consider the likelihood of a merger resulting in the merged firm being able to significantly and sustainably increase prices or profit margins.

4.68 Sustained price increases above competitive levels are the most visible sign that the merged firm has increased its market power and there is a substantial lessening of competition in the market. The price increase may be used to protect inefficient operations rather than to accumulate excess profits. Another possibility is that a merger, instead of increasing prices, may prevent prices from falling to the competitive level by forestalling entry such that profit margins are preserved or even increased.

4.69 Cost reductions which are claimed to result from the merger may not result in lower prices to consumers because the savings are allowed to accrue as increased profits. This would mask any signals to the market and may adversely affect competition.

Buying power or countervailing power

4.70 So far, the Guidelines have focused on the exercise of market power on the supply-side. However, market power can be exercised on the demand-side by monopsonists or groups of buyers acting together to depress prices below their competitive levels. The effects are comparable to those associated with the exercise of market power on the supply-side.

4.71 Generally, the market power (sometimes referred to as buying or bargaining power) must be supported by a credible threat to bypass the supplier if no acceptable deal can be bargained. This may not always be the case in telecommunications when the existence of alternative suppliers may be constrained by the presence of “bottleneck” or essential facilities, particularly the local loop or the network to which the originating or terminating customers are directly connected. While it may not be common in telecommunications, should it occur the TA will assess the effects of any demand-side market power in an analogous fashion to assessing supply-side market power.

Efficiencies

4.72 As mentioned, a fundamental objective of competition policy is to increase economic efficiency. Economic efficiency has three components:

- productive efficiency, which is achieved where a firm produces the goods and services that it offers to consumers at least cost; enabling the combined firm to achieve lower costs in producing a given quantity and quality

- allocative efficiency, which is achieved where resources in the economy are allocated to their highest valued uses (ie, those that provide the greatest benefit relative to costs); and

- dynamic efficiency, which is an on-going process of introducing new technologies and products in response to changes in consumer preferences and production techniques.

4.73 In relation to productive and dynamic efficiencies, competition seeks to achieve these efficiencies organically or internally within the firm. However, mergers also have a potential to generate significant efficiencies by permitting a better utilization of existing assets and the realization of economies of scale and scope which would not have been available to either firm without the merger.

4.74 Efficiencies generated through a merger can enhance the merged firm's ability and incentive to compete. For example, merger-generated efficiencies may enhance competition by permitting two ineffective high-cost competitors to become one effective low-cost competitor. If the efficiency gains are translated into a more vigorous competitor, competition in the market as a whole would be increased rather than lessened by the merger.

4.75 Furthermore, in markets with conditions conducive to co-ordinated conduct, an efficiency-enhancing merger can undermine those conditions by increasing the incentive for a "maverick" to break from the pack or, indeed, by creating a new "maverick" firm.

4.76 To the extent that an efficiency-enhancing merger increases competition by creating a more vigorous competitor, the TA may consider the efficiency gains to be a relevant matter to take into account in forming an opinion whether the merger substantially lessens competition. However, the TA would need to be satisfied on the following points:

- the efficiency gains must occur as a direct result of the merger ("merger-specific efficiencies");

- the efficiencies must be clearly identified and verified ("recognizable efficiencies"); and

- the efficiency gains must translate into more a effective level of competition from the merged entity than the level that was offered by the merging parties separately ("translated efficiencies").

4.77 On the first point, it must be demonstrated that the efficiencies will be achieved by the merger and would be unlikely to have been achieved without the merger (for example, internal re-organisation) or by another means having comparable anti-competitive effects (for example, a joint venture arrangement).

4.78 In relation to the second point, efficiencies are often difficult to verify and quantify, in part because much of the information relating to efficiencies is uniquely in the possession of the merging firms. Moreover, efficiencies projected reasonably and in good faith by the merging firms may not be realized. Nonetheless, efficiency claims must be substantiated as far as possible so that the TA can be reasonably satisfied about:

- the likelihood and magnitude of each claimed efficiency; and

- how and when each efficiency would be achieved.

4.79 Certain types of efficiencies are more likely to be identifiable and more substantial than others. For example, efficiencies resulting from the shifting of telecommunications traffic from formerly separately owned networks onto the one network may result in a reduction in marginal costs which are merger-specific, identifiable and quantifiably substantial. Other efficiencies, such as those relating to research and development, are potentially substantial but are generally less verifiable. Others such as those relating to procurement, management, or capital cost are less likely to be merger-specific or substantial, or may not be as identifiable.

4.80 On the final point, it needs to be demonstrated how each efficiency would enhance the merged firm's ability and incentive to compete. An increase in competition manifests itself in lower prices, improved quality and service, new products and more choice. However, an increase in efficiency through merger may not be passed on to consumers in the form of increased competitive activity and lower prices, etc. The TA needs to be satisfied that this will not be the case. Furthermore the TA will put the onus on the parties to the merger to provide convincing evidence that the claimed efficiencies will come to fruition.

4.81 More fundamentally, a merger effectively reduces the number of competitors in a market by one and there is a presumption that it will lessen competition (though not necessarily "substantially" lessen competition). For this reason, efficiencies are only likely to make a difference in merger analysis when the likely adverse effects on competition, absent the translated efficiencies, are not great. Efficiencies alone would almost never justify a merger where it would result in an oligopoly or monopoly.

Failing firms

4.82 At first glance, one would expect that the acquisition of a failing or failed firm would not substantially lessen competition. In most instances this may be the case. However, there may be circumstances where the acquisition of a failing firm may substantially lessen competition. As the issue is essentially whether the acquisition of a failing firm will affect competition, it is a relevant matter for the TA to take into account when forming an opinion whether the merger substantially lessens competition.

4.83 The competition concern relates not to the failure of the target firm *per se*, but to the potential withdrawal from the market of a source of supply presently channeled through that firm. Should that source of supply remain in the market, it acts as a competitive constraint in the market because the assets of the failed or failing firm may be acquired at significantly written-down value by an existing firm that poses less competitive danger than the acquirer or by a potential new entrant. Accordingly, the deciding factor is not whether the firm is likely to fail or has failed, but whether the firm’s assets would exit the market and so would never represent any source of actual or potential constraint in the market. In other words, the concern is not with a specific competitor but with the competitive process.

4.84 Accordingly, in analysing the issue, the TA will look at three key questions:

- if the firm has not already failed, whether the firm is likely to experience commercial failure;
- if the firm has failed, or is considered likely to fail, whether the assets of the firm would, without the acquisition, exit the market; and
- in either case, whether it has made unsuccessful good-faith efforts to elicit reasonable alternative offers to acquire the firm which pose less severe danger to competition.

4.85 If the answers to all three questions are positive, then the competitive effects of the firm being acquired by the acquirer are likely to be no worse than if the assets were allowed to exit the market. A competitive influence that would otherwise have been removed by failure is to be removed by acquisition. Thus the acquisition would be unlikely to cause concerns from a competition perspective.

4.86 One issue that may arise in this scenario, however, is the distribution of the failing firms' customer base if this base is of significant proportions in terms of market share. If the assets exited the market, the distribution of the failing firm's customer base among the remaining market participants would be determined by market forces, whereas an acquisition would tend to deliver those customers to the acquiring firm thus increasing its market share.

4.87 If the firm has failed, or is considered likely to fail, but the assets are unlikely to exit the market, then further analysis is required. In relation to carrier networks and facilities, the competition concerns may persist in view of the sunk cost nature of much network investment. In assessing the likely anti-competitive effect of the acquisition, the analysis would follow more traditional lines of inquiry: how would the acquisition affect existing levels of competition and would it raise barriers to entry? In other words, the "with and without" comparison is made.

4.88 In making these inquiries the TA will bear in mind that, in an industry characterised by network effects and positive feedback loops (particularly in relation to carriers), the acquisition of network assets and the customer base attached to that network may enhance network effects and create a critical tipping point beyond which the existing level of competition is substantially lessened and new entry is substantially deterred.

Extent to which substitutes are available

4.89 In considering the extent which substitutes are available in the market, both existing and potential substitutes from the supply side and the demand side will have to be included. This identification of demand and supply side substitution underpins the market definition process (as explained in section 3). In considering the extent to which substitutes are available, the TA may also consider the price elasticity of supply of the firms in the market post merger. Unless the producers of the substitutes are able to increase the supply to meet the demand of customers of the merged firm switching suppliers in response to a material price increase of the merged firm, the existence of the substitutes in the market would not be an effective restraint to the exercise of market power by the merged firm. It may therefore be necessary to consider the relative supply capacity of the firms in the market after the merger, as well as the costs of capacity expansion. If the merged firm ends up controlling a majority of the capacity in the market, the other firms in the market may not be able to provide much competitive restraint.

Import competition

4.90 Import competition is a form of new entry rather than supply-side substitution. In an open trading economy such as Hong Kong, import competition can play an important role in restraining the exercise of market power. An example of import competition in the telecommunications industry is the provision of international telephone services to Hong Kong users by service providers not operating in Hong Kong. In considering the effectiveness of import competition as a restraint to the exercise of market power, the capacity of supply of overseas suppliers and speed of entry into the domestic market have to be considered.

4.91 Of course, in most segments of the telecommunications industry where physical presence in Hong Kong is necessary for the supply of services, the threat of import competition would not be relevant.

Other factors – dynamics and technological change

4.92 The factors mentioned above are not exclusive. The TA will take other factors into account when relevant to assess the likely anti-competitive effects of a merger.

4.93 Telecommunications is characterised by dynamic and rapid technological changes. In such an industry, market boundaries are not likely to remain constant. Digitalisation and convergence in particular are changing the structure of telecommunications markets and the nature of competition within those markets.

4.94 As digitalisation reduces every form of communication (voice, image, video and data) to streams of binary digits, it is possible to convey a range of distinct services through one delivery medium and operate the service over one single platform. This phenomenon, known as “convergence”, is leading to a blurring and convergence of traditionally separate markets in telecommunications and other technologically-related industries such as broadcasting. For example, networks based on the Internet Protocol (IP) are conveying a range of services such as high speed Internet access, voice and video telephony and television programme services.

4.95 As technology develops certain sectors of the market will grow significantly while other sectors will decline as a result of substitution. While mobile services are now viable substitutes for paging services for most applications, voice over IP services are increasingly viable substitutes for traditional circuit-switched telephony services.

4.96 In a such a dynamic industry where marker boundaries can rapidly change through changing conditions of competition and substitution possibilities, the traditional indicators of anti-competitive concern in more stable markets (such as high market shares) may not be as prescient.

4.97 However, digitalisation has released divergent competitive forces which have yet to be fully played out:

- on the one hand, it has facilitated the development of alternative conveyance networks (for example, the broadband fixed wireless access and 3G mobile networks), thus reducing any market power in incumbent networks;

- furthermore, economies of scale from the ability to deliver a range of services over one network may facilitate greater alternative network roll-out; but

- the economies of scale and scope usually associated with digital networks may lead to market power in wholesale conveyance networks and service platforms which may in turn be vertically leveraged into retail markets (for example, control over the local loops being leveraged into Internet service provision); and

- market power in a particular service (for example, pay TV) transmitted over a particular network may be horizontally leveraged into other retail markets (for example, into local telephony or Internet service provision).

4.98 It is not the purpose of these Guidelines to predict how telecommunications markets will evolve in the face of digitalisation, convergence and other changes. However, the TA will fully take into account the dynamic changes occurring in the industry when assessing the effects on competition of mergers and acquisitions involving any licensed telecommunications carriers.

5 BENEFIT TO THE PUBLIC

5.1 In investigating a completed merger or acquisition under section 7P(1) or considering an application for consent for a proposed merger or acquisition under section 7P(6), if the TA forms an opinion that the merger or acquisition has, or is likely to have, the effect of substantially lessening competition in a telecommunications market, he will proceed to consider whether the merger or acquisition has, or is likely to have, a benefit to the public and that the benefit outweighs any detriment to the public that is, or is likely to be, constituted by the anti-competitive effect.

5.2 The party claiming that the merger or acquisition has, or is likely to have, a benefit to the public that outweighs any detriment to the public arising from the substantially lessening competition caused by the merger or acquisition should state in the information provided to the TA in an investigation under section 7P(1) or application submitted under section 7P(6) what the claimed public benefit is, the likely magnitude and timing of the benefit and provide detailed and verifiable evidence of such benefit. General and unverifiable claims of public benefit is unlikely to be given much weight in the TA's consideration.

5.3 The TA will need to be satisfied that the public benefit is real, likely to be realized within a reasonable period after the merger or acquisition, likely to be sustainable and would not be achieved if the merger or acquisition did not go ahead. The TA will also need to be satisfied that the public benefit outweighs the detriment to the public constituted by the anti-competitive effect of the merger or acquisition. The party claiming the existence of the public benefit may be required to propose measures, including commitments guaranteed by performance bonds or the modification of the licence conditions of the carrier licensee in question where necessary and appropriate, to ensure that the claimed public benefit will be realized and sustained.

5.4 An example of the public benefit that the TA will consider is any consumer benefit that the merger or acquisition is likely to generate despite the substantially lessening competition in the market. Such consumer benefits may include lower prices as a result of improved efficiencies arising from the merger or acquisition, or more innovation, wider choice or better quality of services as a result of investment in network infrastructure or engagement in research and development activities, or continuity of service that cannot be achieved without the merger or acquisition.

5.5 Any claim of improved efficiencies arising from the merger or acquisition must be justified, and will be considered, in the same manner as the claim of improved efficiencies enhancing the level of competition in the market as detailed in paragraphs 4.72 - 4.81. It must also be demonstrated that a reasonable portion of the benefits from improved efficiencies is likely to be passed on to the consumers.

6 PROCEDURES

6.1 Since there is no requirement to notify mergers or to obtain approval, the TA will keep himself informed about merger activity by monitoring the media and relying on third parties, such as competitors, to bring transactions to his attention. However, the TA anticipates that parties to a merger will wish to contact the Office of the Telecommunications Authority (OFTA) at an early stage to establish whether the TA has any concerns about a proposed transaction. Informing the TA in advance may enable the parties to identify any potential competition concerns and to address the issues in good time, as well as minimizing the risk that a completed transaction will be ordered to be undone or modified following a detailed investigation. Parties are therefore encouraged to contact OFTA at the earliest opportunity to discuss the application of the merger provisions of the Ordinance.

6.2 There are a number of ways in which a merger can be considered by the TA, as follows:

- informal advice
- application for prior consent
- *ex post* investigation.

Informal advice

6.3 To assist licensees and their advisers when planning mergers, the TA is willing to provide informal advice on a confidential basis. The TA would be prepared to advise on a proposed transaction which is not yet in the public domain. Since the advice would be given without the benefit of any third party views being made known to the TA, the advice would not be binding on the TA in any way. It would simply be a preliminary view to assist the parties. The advice, however, would be confidential to the party requesting it and the TA requires the party concerned (and its advisers) to agree not to publish the advice or to disclose it in any other way without the TA's prior consent, even after the merger has been made public.

6.4 Parties seeking informal advice should provide the TA with brief details of the transaction, using the application form for prior consent as a guide. The quality of the information provided will determine the extent to which the TA can provide useful advice. Information provided in writing at least several days before a meeting is likely to be the usual format.

6.5 There is no timetable for providing informal advice, but the TA will try to deal with requests within the parties' requested time frame, where that is possible.

Applications for prior consent

6.6 Under section 7P(6) a party to a proposed merger can apply in writing to the TA for consent to a transaction. The TA can consent to the application, give consent subject to conditions or refuse to give consent. Before forming an opinion on how to determine the application, the TA is obliged to give the parties to the transaction and all carrier licensees, a reasonable opportunity to make representations. The TA is obliged to consider the representations, if any, before taking any action. The TA's determination of the application is final in so far as it prevents the TA from reconsidering the same merger transaction if or when it takes place.

6.7 To facilitate the efficient and speedy processing of applications for prior consent, the TA has devised an application form which sets out the information required, and is reproduced in the **Annex**. Parties are requested to complete this form and submit it with their application. However, parties are encouraged to contact OFTA before completing the application form to discuss the types of information which the TA would need in a particular case. These early meetings might also identify additional useful information that might accelerate the TA's consideration of a proposed merger.

6.8 The proposed transaction should be in the public domain when the application is submitted. If the transaction is not in the public domain, the TA will ask the applicant to give consent for the TA to consult the public as a pre-condition for accepting the application. This ensures that the TA is able to solicit views from third parties, which are a vital element of any assessment, and enables the TA to consult all carrier licensees, which he is obliged to do. The TA will publish a notice on the OFTA website stating that the application has been received, giving brief details of the proposed transaction and inviting representations.

6.9 Within one month of receiving the application, the TA will conduct a preliminary investigation. At the conclusion of this investigation, the TA will either give the applicant a final decision or open a detailed investigation if further work is required. It is anticipated that in cases which do not raise serious competition issues, the TA will be able to give consent to the application within the one month period. When a detailed investigation is necessary, the TA will give a final decision within a further 3 months. The TA will evaluate the application in the same way that he would evaluate an *ex post* investigation. The TA's decision will be published (see paragraphs 6.19 - 6.21 below).

***Ex post* investigation**

6.10 The TA is empowered by section 7P(1) to examine a change, as defined in the

Ordinance, in relation to a carrier licensee. The relevant change is defined in section 7P(16) with reference to 3 thresholds, as explained in paragraphs 1.7 – 1.10 above. Within 2 weeks after the transaction has been publicly announced or made known to the TA, the parties will be notified if the TA wishes to carry out a detailed investigation.

6.11 As soon as it appears to the TA that a detailed investigation is justified, a notice will be published on the OFTA website stating that an investigation has been started, giving brief details of the transaction and inviting representations. At the same time the parties to the merger will be asked to provide the TA with the information which is required to assess whether the TA should intervene in the transaction. The TA will request the types of information set out in the application form for prior consent (see the **Annex**). The information will usually be sought under section 7I of the Ordinance or the relevant licence condition. This should avoid any undue delay in the investigation process, but where the parties do not comply with an information request, the time frame for considering the case may need to be extended. The detailed investigation will be completed within 3 months unless the parties fail to meet the deadlines specified in information requests.

6.12 The TA is statutorily bound by section 7P(3) to consult all carrier licensees in the market, but under section 6A(3)(a), the TA is required to have regard to relevant considerations in forming an opinion or making a direction or decision. The TA may therefore wish to make market inquiries which could include consulting with competitors, suppliers, customers, industry associations and consumer groups including the Consumer Council and consider their views in so far as they are relevant. The TA may also carry out some independent research, for example to help assess the degree of competition in the relevant market.

6.13 The TA will carefully consider all the information and submissions received from the parties to the merger and from third parties. Once the TA has evaluated all the available information, a decision will be drafted setting out the TA's preliminary conclusions. This draft decision will be sent to the parties to the merger and they will be invited to comment within a specified time limit.

6.14 The TA will then reconsider the draft decision in the light of the representations made by the parties to the merger. A final decision will be prepared. The decision will be sent to the parties to the merger at the same time as, or immediately prior to a public announcement (see paragraphs 6.19 – 6.21 below).

Remedies

6.15 When the TA forms an opinion that a merger has, or is likely to have, the effect of substantially lessening competition, he can by notice direct the licensee to take such action as he considers necessary. However, the notice may not be issued if the TA is satisfied, in the case of a completed transaction, that the merger has or is likely to have, a benefit to the public which outweighs any detriment to the public which will, or is likely to, result from a substantial lessening of competition. Similarly, when considering a proposed merger, the TA may decide to give consent without issuing a direction to the parties, if he is satisfied about an overall benefit to the public.

6.16 In circumstances where the TA takes the view that it would be appropriate to require the parties to modify a merger, he will consider both structural and behavioural remedies. In general, structural remedies will be preferred. These could include divestment of part of the merged business through the disposal of assets or shares. Typically this might involve an overlapping business. The TA would require the disposal to be made within a specified time limit.

6.17 Behavioural remedies may be appropriate where the TA wishes to ensure that the merged company does not behave in an anti-competitive way after the merger. For example, the parties may be required not to undertake a particular course of conduct made possible by the merger. The TA may wish to consult third parties on any proposed remedies.

6.18 The parties to the merger can always take the initiative and propose suitable remedies to meet the concerns of the TA, either in the initial representations or at a later stage. However, the late submissions of proposals may delay the conclusion of the investigation process.

Announcement of investigations and publication of decisions

6.19 As noted above, the TA will publish a notice on the OFTA website to announce the commencement of an investigation. This will occur when the TA receives an application for prior consent, and also when the TA decides, on his own initiative, to carry out a detailed investigation of a completed transaction. A public announcement will also be made if the TA decides to open a detailed investigation after a preliminary consideration of an application for prior consent. The publication will always take place after 4.00pm when the Hong Kong Exchanges and Clearing Limited is closed. Notification will be sent at the same time to the Hong Kong Exchanges and Clearing Limited. This does not in any way amend or vary the parties’ obligations under the Listing Rules. The parties should make their own arrangements with the Hong Kong Exchanges and Clearing Limited for any announcements under the Listing Rules relating to the publication of the TA’s announcements.

6.20 The TA’s final decisions will be published. Section 7P(14) requires the TA to publish, in such manner as he considers appropriate, any opinion, decision or direction made in relation to a proposed or completed merger. The decisions will be published after the Hong Kong Exchanges and Clearing Limited closes, as explained in the previous paragraph. Publication will generally take place in two stages. Firstly, publication of the actual opinion, decision or direction will take place at the same time as, or very soon after, it is communicated to the parties to the transaction. The decision will be notified to the Hong Kong Exchanges and Clearing Limited at the same time. Then the full text setting out the TA's reasons will be published as soon as the parties have had an opportunity to comment on confidential material, if any, contained in the text. This will allow the parties to request the TA to delete any information in the decision which they consider to be commercially confidential. The TA anticipates that he will be able to publish the full text within a week or so of announcing the outcome.

6.21 In every case where the TA receives an application for prior consent, or opens a detailed investigation of a completed merger on his own initiative, a final decision will be published. However, in circumstances where the TA decides not to investigate a completed merger, no decision will be published.

Confidentiality

6.22 The TA will observe strict confidentiality in all aspects of the investigation of mergers. The parties to a merger will also have the opportunity to request the deletion of material in the TA's decision which they consider to be commercially confidential, when they see a final copy prior to publication.

6.23 The TA will not normally publish submissions received in a merger investigation because much of the material is likely to be of a commercially confidential nature. However, there may be occasions when the TA will consider it appropriate to publish a submission or part of a submission, in order to elicit comments from third parties. This is most likely to arise in relation to submissions made by the parties to a merger concerning claimed benefits to the public.

Fees

6.24 The costs or expenses incurred by the TA in processing an application for prior consent and making a decision on the application, are recoverable as a debt due to the TA from the applicant. The TA will charge the actual costs and expenses incurred and will maintain a time recording system to compute the cost of staff time involved, which is likely to be the largest single item of expense. The amount recoverable by the TA is subject to a cap which is currently set at $200,000. The TA will not recover any costs or expenses when investigating a completed merger or giving informal advice.

Office of the Telecommunications Authority
4 August 2003

Annex

Application for Prior Consent to a Merger under section 7P(6) of the Telecommunications Ordinance

Please provide the following information, using the paragraph numbers of this form, and supply a copy of all documents requested. Applicants are encouraged to discuss with OFTA the information required, before submitting an application.

General information

1. State the name and address (registered office) of the carrier licensee or "interested person" on whose behalf this application is submitted.

2. If a representative has been appointed to act on behalf of the applicant, please state the name and address of the representative. An applicant can appoint a representative to submit the application on its behalf and to act for it in further correspondence with OFTA. To authorise a representative, please complete and sign the declaration attached to this form. The authorisation may be changed or withdrawn at any time but the change will only be effective when written notice is received by OFTA.

3. Provide the following details of the person to whom OFTA should send all correspondence relating to this application:

   Name
   Hong Kong address
   Telephone number
   Fax number
   E-mail address

4. State the name and address (registered office) of the acquiring company and the target company.

5. State the type of transaction (for example, whether it is an agreed bid, a full takeover or the acquisition of assets or of a minority shareholding or a joint venture).

6. Explain how the transaction qualifies as a change in relation to a carrier licensee as defined in subsection 7P(16) of the Telecommunications Ordinance.

7. Provide details of the group structure of the acquiring company and the target (including the ultimate holding company and all subsidiaries in the

telecommunications sector). This could be illustrated by the use of organisation charts or diagrams.

8. List all the other companies in the telecommunications sector in which either the acquiring company or the target hold more than 5% of the voting rights, issued share capital or other securities, and state the percentage held.

9. List any members of the board of the acquiring company or the target who are also members of the boards of any other companies in the telecommunications sector, and identify the other companies, and the position held.

10. List all the telecommunications licences held by the acquiring company, the target and their affiliated companies.

11. State whether the transaction has been notified for approval in any other countries.

12. Briefly describe the steps taken to publicise the proposal and enclose a copy of any press release or report (including those in specialist or trade journals) and details of any notifications to listing authorities.

Description of the proposed merger

13. Give details of the ownership and control of the acquiring company, and the target:

    (a) before the merger; and
    (b) following the merger.

14. Provide full and complete details of the proposed change in the carrier licensee. This will include share acquisitions, changes of directorships etc and any factors upon which the completion of the merger is conditional.

15. Provide the business plans for the acquiring company and the target for the current and two previous years.

16. Provide two copies of the most recent annual report of the acquiring company and the target. If annual reports are not available, please provide the audited financial accounts (including a profit and loss account; and pro forma balance sheet showing total turnover and profit before tax).

17. State the expected time scale for (i) exchange of contracts; and (ii) completion of the merger.

18. Supply a copy of the final or most recent version of the contract(s) giving effect to the merger, or a copy of the offer document in a public bid.

Market Information

19. Provide a brief description of each product or service of the acquiring company and the target in the telecommunications sector and identify any areas of overlap.

20. Provide a definition of the relevant product and geographic markets for the purposes of this application.

21. For products or services identified in question 19 above, please provide:

    (a) a brief description, in terms of characteristics/price differences, of any product(s) or service(s) that might be considered close substitutes, on the demand or supply side;

    (b) the market share (in terms of monetary value, volume/capacity and subscriber base) of the acquiring company, the target and all affiliated companies in the telecommunications sector;

    (c) the names, contact details (to include contact names, addresses, e-mail addresses, fax and telephone numbers) and market shares of the acquiring company's and the target's top five competitors (including overseas companies/importers) for each product or service; and

    (d) the names and contact details (to include contact names, addresses, e-mail addresses, fax and telephone numbers) and estimated share of the business of both the acquiring company's and the target's top five customers (including overseas customers where appropriate) for each product or service.

22. For the product and geographic market(s) identified in question 20 above, please provide:

    (a) an assessment of the level of competition in the market and a description of how competition works in the market;

    (b) an estimate of the capital expenditure required to enter the market on a scale necessary to gain a 5 per cent market share, both as a new entrant, and as a company which already has the necessary technology and expertise. Please estimate the extent to which this cost is recoverable should the firm decide to exit the market;

    (c) an estimate of the ratio of annual expenditure on advertising/promotion relative to sales required to achieve a market share of 5 per cent;

(d) details of any other factors affecting entry, e.g. licensing requirements, technology or R&D requirements, length of contract etc including, where possible, an estimate of the time and resources necessary to overcome these factors, citing any relevant examples; and

(e) an assessment of the ease of exit from the market citing any relevant examples.

23. Provide details of any shareholding agreement or joint ventures with other operators in the telecommunications sector.

24. Provide a brief assessment of any other features of the market that the TA should take into account in considering the effect of the merger.

Motivation for the merger

25. State the reasons for the merger.

26. Provide copies of analyses, reports, studies and surveys submitted to or prepared for any member(s) of the board of directors or the shareholders' meeting, for the purpose of assessing or analysing the proposed transaction with respect to competitive conditions, competitors (actual and potential), and market conditions. Please indicate the date of preparation of these documents.

27. In the event that the applicant wishes to propose any conditions to address possible competition concerns arising from the merger, please attach a separate statement describing the proposed conditions and the way in which they will address these competitive concerns.

28. Provide a description of any efficiencies that you believe the merger will bring (attach any appropriate supporting documentation).

29. Provide details of any benefit to the public which you believe will result from the merger, including but not limited to what the claimed public benefit is, the likely magnitude and timing of the benefit and detailed and verifiable evidence of such benefit. Please explain whether, and if so, how any such benefit might outweigh any detriment to the public which would result from any substantial lessening of competition.

Declaration

30. The applicant should sign and enclose the declaration attached to this form when submitting an application.

DECLARATION

This declaration is to be signed by the applicant.

1. I acknowledge that the TA may bring the existence of the proposed change in the carrier licensee described in this application, and the fact that this application has been submitted, to the attention of interested parties.

2. I declare that to the best of my knowledge and belief, the information given in the application is true, correct and complete, that the copies of documents supplied are complete and that all estimates are identified as such and are the best estimates of the underlying facts.

3. I confirm that the person named as the applicant's representative (if any) is authorised to act on behalf of the applicant for the purposes of this application.

   Signed:
   Name: (block letters)
   Position: (block letters)
   Date: