The Legislative Council
Bills Committee on Telecommunications (Amendment) Bill 2002

Explanatory Note on the Guidelines on the Competition Analysis of Mergers and Acquisitions in Telecommunications Markets

This paper provides an explanation of the key sections of the draft guidelines on the competition analysis of mergers and acquisitions in telecommunications markets (M & A Guidelines) which are currently under preparation by the Office of the Telecommunications Authority (OFTA).

2. Our policy objectives of introducing the Telecommunications (Amendment) Bill 2002 are to promote fair and effective competition, and to provide a clear and comprehensive framework for regulation of mergers and acquisition in the telecommunications market to assist investors in making informed decisions. The M & A Guidelines therefore intend to give practical guidance to carrier licensees and other interested parties on the approach that the Telecommunications Authority (TA) will take in performing the functions conferred upon him to regulate mergers and acquisitions of carrier licensees under the Telecommunications (Amendment) Bill 2002 (the Bill) when enacted.

3. Clause 2 of the Bill requires the TA to issue guidelines specifying the matters that he shall take into account before forming an opinion on whether a merger or acquisition would substantially lessen competition. The TA is further required to carry out consultations with persons who may be affected by the new regime before such guidelines are issued.

4. The TA is in the process of preparing a consultation draft of the M & A Guidelines. We will incorporate views from Members during the Bills Committee stage. Pursuant to the statutory requirement, the TA will carry out consultations. After the consultations, the TA will take into account the views submitted by the industry, before publishing the guidelines under the new section 6D(2) (aa).

5. Annex A sets out the TA's preliminary views on the key matters that should be addressed in the M & A Guidelines. The TA's views on this matter accord with internationally accepted legal and economic practice in comparable competition or antitrust jurisdictions overseas, most particularly in the United States, Australia and the European Community. Competition authorities in these and other jurisdictions have issued merger and acquisition guidelines for assessing the anti-competitive effects of mergers and acquisitions, and all of those guidelines specify matters similar to those specified in the draft M & A Guidelines. Like the overseas authorities, the TA would review and update the M & A Guidelines from time to time, and would initiate consultations accordingly.

6. We also attach for Members' reference at Annexes B and C extracts of the relevant sections of the M&A guidelines issued by Australia and the US.

Office of the Telecommunications Authority
December 2002

<u>Annex A</u>

TA's Preliminary Views on the Key Matters that Should be Addressed in the M&A Guidelines

(English Only)

A. Scope of Application

1. The changes in ownership and control regulated by section 7P(1) when enacted include change in the control exercised over a carrier licensee or the beneficial ownership in, or the voting control of, any of the voting shares in a carrier licensee.

2. The TA is unlikely to be concerned about changes in ownership or control over a carrier licensee which are purely transitory (for example, acquisitions by banks, insurance companies or stockbrokers with a view to reselling). Acquisitions by liquidators and acquisitions by financial holding companies which do not result in control over the competitive conduct of the carrier licensee are also unlikely to be of concern.

3. In general, holding the beneficial ownership or voting control of less than 15% of the voting shares in a carrier licensee would not confer sufficient influence over the affairs of a carrier licensee so as to significantly affect competition in the market. Therefore the TA will not normally consider it necessary to investigate a transaction that would lead to a person exercising beneficial ownership or voting control of less than 15% of the voting shares in a carrier licensee.

B. Analytical Framework

4. Section 7P(1), when enacted, 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 the following steps:

(1) *Market definition* - a definition of the relevant market;

(2) *Competition analysis* - including

(a) a study of the state of competition within the relevant market; and

(b) an assessment of whether the merger or acquisition has, or is likely to have, the effect of substantially lessening competition within that market.

(1) Market definition

5. The purpose of the competition analysis in relation to a merger or acquisition is to assess whether competition in the relevant market would be substantially reduced as a result of the merger or acquisition. Therefore the competition analysis must be carried out in relation to the relevant market defined.

6. When competition in the relevant market is substantially lessened, firms in the market would be in a better position to exercise "market power" which is the ability to raise prices, over a sustained period, above the level that would be expected in a market under the conditions of effective competition. If the consumers can turn to other suppliers, either suppliers of substitutable products, or suppliers of the same product but in other geographical areas, the firms are likely to be restrained in raising prices.

7. Thus it is important to define the boundary of the relevant market carefully before the assessment of the impact of the merger or acquisition on competition in the relevant market. If the relevant market were defined too narrowly, the impact of the change might be over-estimated because the restraints on the exercise of market power by other substitutable products or suppliers in other geographical areas are overlooked. If the relevant market were defined too widely, the impact of the change might be under-estimated because some products or geographical areas which were thought to be providing the restraint on the exercise of market power are actually not providing the estimated restraint.

8. The relevant market is described in terms of the product supplied (the product market) and the geographical area in which it is supplied (the geographic market). The boundary of the product market or

the geographic market may be assessed based on the demand-side substitutability and supply-side substitutability.

The product market

9. A product market covers the product supplied by the parties to the merger or acquisition and all what the consumers regard to be closely substitutable products. 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 (e.g. mobile phone services) and the functional level in the supply chain at which it is supplied (e.g. at the wholesale level or retail level). Products may be defined by reference to time (e.g. peak and off-peak telephone calls) or particular groups of customers (e.g. business and residential customers).

10. In determining whether a firm 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 by consumers and suppliers to the price increase:

(1) *Demand side substitutability* - the likely response of consumers to a price increase. A price increase could be made unprofitable by consumers switching to other substitutable products (e.g. when the price for paging services is increased, the consumer may consider using the mobile phone services instead); and

(2) *Supply side substitutability* - the likely response of suppliers to a price increase. A price increase could be made unprofitable by firms switching their production capacity at relatively short notice to supply the product subject to the price increase (e.g. an IDD service provider may readily switch capacity for services over a route to serve another route subject to price increase).

11. The “hypothetical monopolist” test is generally accepted to be an appropriate tool for defining a market. Under this approach, a hypothetical profit-maximizing firm is assumed to be the only present and future supplier of a product in a particular area and this “hypothetical

monopolist" is to impose a small but significant and non-transitory increase in price ("SSNIP") of the product in question.

12. If in response to the SSNIP, there is a level of substitution by other products that is large enough to make the price increase unprofitable, these products are considered to be close substitutes to the product in question 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.

13. 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.

The geographic market

14. 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.

15. Like the product market, the geographic market can be also defined with reference to the demand side substitutability and the supply side substitutability.

(1) *Demand side substitutability* - the likely response of consumers to a price increase. A price increase could be made unprofitable by consumers switching to products supplied from other areas (e.g. a consumer might consider IDD services supplied by overseas calling card operators if such services supplied from overseas were cheaper); and

(2) *Supply side substitutability* - the likely response of suppliers to a price increase. A price increase in a particular area could be made unprofitable by firms in other areas at relatively short notice deploying capacity to supply customers in the area in question.

16. A process analogous to the "hypothetical monopolist" test for the product market 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.

(2) Competition Analysis

17. Having defined the market, the issue now is to assess the actual level of competition within that market and how this level is expected to be affected by the changes in the ownership and control of the carrier licensees.

18. 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 or acquisition, by its nature, will change the market structure (for example, by changing market shares).

19. Accordingly, the TA will take into account these structural factors when assessing the level of competition in a market and the likely effect the merger or acquisition 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).

20. When doing the competition analysis and examining these structural factors, there are three analytical issues which need to be considered. They are set out below.

Substantiality test – creation of market power

21. The concept of "substantiality" is necessary 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.

22. 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. 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.

23. Adopting this rationale, the TA will consider whether a merger or acquisition creates or enhances market power to assist in assessing whether a merger or acquisition substantially lessens competition in terms of section 7P of the Telecommunications Ordinance when enacted. He will do so by examining the structural factors set out in paragraphs 30 to 81.

Unilateral v. co-ordinated exercise of market power

24. A merger or acquisition may substantially lessen competition in two ways:

(1) by enabling the merged firm to exercise market power unilaterally; or

(2) particularly in oligopolistic markets, by increasing the potential for the co-ordinated exercise of market power by the remaining competitors.

The TA will examine the above through an examination of the evidence available to him as set out below.

25. The former case represents the typical case of the exercise of market power by a firm not subject to sufficient competitive restraint from its competitors and customers. In the latter case, with a reduction in the number of firms operating in a market, the market power is created by engaging in tacit coordination or conscious parallelism. It should be noted that such behaviour of tacit coordination or conscious parallelism is not necessarily a breach of the fair competition provisions which prohibit anti-competitive agreement or arrangement. It is just a behaviour of the remaining competitors in anticipating responses from competitors and deciding that raising prices, or refraining from reducing prices, would increase profit taking into account the likely responses of the competitors.

26. The exercise of co-ordinated market power depends crucially on reaching profitable terms of co-ordination and being able to detect and punish firms which do not follow co-ordinated or parallel action. Conditions conducive to co-ordination typically include concentrated markets, product homogeneity and visible pricing (for example, through advertisements).

27. On the other hand, a firm is more likely not to follow co-ordinated or parallel action if it has an economic incentive not to follow. For example, the firm concerned 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 such a non-follower.

With-and-without test

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

29. To assess whether competition has been substantially lessened by a merger or acquisition, the TA will employ a "with-and-without" test. That is, the level of competition that exists and would likely exist in a market without the merger or acquisition will be assessed and compared with the likely level of competition in the future were the merger or acquisition to proceed. In other words, he will examine the structural factors in paragraphs 30 to 81 below for both the existing market and future market if the merger or acquisition takes place to compare the existing level of competition with the likely level of competition in the future.

Factors Considered in Competition Analysis

Market share and concentration

30. High market shares and concentration levels as a result of a merger are *necessary* but *not sufficient* conditions for the exercise of market power. On the other hand, a merged entity with only small market share in a

relatively unconcentrated market would not normally be able to exercise market power.

31. 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 a merger or acquisition. If the market share is *less than 15%*, the TA is unlikely to intervene. In cases where the share is between 15% and 40%, the TA will decide on a case by case basis whether a detailed investigation is required.

32. 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. In telecommunications, examples of the former are the number of customers, accounts, lines or call minutes. The latter is a particularly useful indicator of market shares in markets characterised by product differentiation and brand loyalty. Transmission capacity or bandwidth sold may be a relevant form of volume measurement particularly when the transmission service is largely commoditised or undifferentiated. Capacity may also be useful in markets for differentiated products where there is volatility in market shares in terms of revenue.

33. 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. It is necessary to assess the extent of the lessening.

34. 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 simple means of screening-out mergers that are not likely to substantially 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 blur 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 emergence of new technologies,

the introduction of new innovative services or the issuing of new telecommunications licences.

35. The choice of the actual volume or revenue measure used for market share will depend on the characteristics of the product in question and the availability of reliable data from the industry.

Removal of a vigorous and effective competitor

36. An important factor which provides guidance on whether the removal of a competitor through a merger or acquisition creates the conditions for the exercise of market power is if the merger removes a vigorous and effective competitor.

37. By its nature, a horizontal merger (meaning a merger between firms operating at the same level of the supply chain, e.g. two suppliers of the same product at the retail level) 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 or acquisition results in the removal of a vigorous and effective competitor.

38. 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.

39. Beyond simply removing a vigorous and effective competitor, the merger may create a market structure which is conducive to tacit coordination or conscious parallelism. Vigorous and effective competitor serve to undermine attempts to co-ordinate conduct in a market. The role of such competitors who do not follow co-ordinated or parallel action is also discussed above in respect of the unilateral and co-ordinated exercise of market power.

Barriers to entry

40. If firms in the market attempt to raise price level above the competitive level over a sustained period, entry of new firms will exert competitive pressure and thwart the exercise of market power. Thus the threat of entry is often viewed as the ultimate regulator of competitive conduct even if the merged entity has a high market share. Therefore it is necessary to examine the barriers of entry to the relevant market in assessing whether a merger or acquisition would substantially lessen competition in that market.

41. Barriers to entry are any market features that place a prospective entrant at a significant competitive disadvantage to incumbents. Entry barriers can be divided into "intrinsic", "regulatory" and "strategic" barriers:

(1) *Intrinsic barriers* - advantages that are available to the incumbents, but not available to the new entrants, or available to the new entrants only at substantially higher costs than the incumbents. Examples are sunk costs, economies of scale and scope, network effects, product differentiation and brand loyalty and essential facilities.

(2) *Regulatory barriers* - barriers that are imposed by regulation

(3) *Strategic barriers*- behaviour of incumbent firms or first movers designed to deter competitive entry

Intrinsic barriers

42. *Sunk costs*. Market entry in telecommunications involves significant sunk costs of entry and exit. Sunk costs are the costs of acquiring capital and other assets that:

(1) are uniquely incurred in entering the market and supplying the services in question;

(2) once incurred, cannot easily be physically recovered and redeployed in another market; and

(3) cannot be economically recouped within a short period of time (at least one year that is normally the time period allowed for supply-side substitution but considerably longer for large infrastructure investments).

43. 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.

44. *Economies of scale and scope*. With economies of scale and scope, average costs fall as the volume 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.

45. 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).

46. *Network effects*. 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.

47. 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.

48. *Product differentiation and brand loyalty*. 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.

49. *Essential facilities*. 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, geographical or legal constraints, or is highly undesirable for reasons of public policy (e.g. local loops).

50. Denial of access to essential facilities is thus capable of constituting a significant barrier to entry. However, the potential for essential facilities to act as a barrier to entry is alleviated by the interconnection and sharing of "bottleneck" facilities regime under the Telecommunications Ordinance.

<u>Regulatory barriers</u>

51. Regulatory barriers can create absolute barriers to entry (for example, a moratorium on new licences). Nevertheless, in Hong Kong, from January 2003, there will be no pre-set limit on the number of fixed carrier licences to be issued.

52. However, there will continue to be restrictions on certain types of new entrants. For example, due to spectrum limitation, the TA has no plan to issue any additional licences for mobile carriers at least until a review in 2005 (although this could be regard as entry barrier due to lack of access to "essential facilities" rather than a "regulatory barrier"). Another

example is that the TA will not consider granting any fixed carrier licences to those applicants who intend to primarily rely on interconnection and wholesale services of other operators' infrastructure to roll out their networks or provide their services. Furthermore, the TA will take into account the financial capability of licence applicants to fulfill the capital expenditure requirement. Such capital requirements may add to the sunk costs of entry.

Strategic barriers

53. 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.

54. 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.

55. 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.

56. 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.

57. Strategic behaviour may also be directed at competitors currently in the market. For example, rather than raise barriers to entry, it may be used to raise rivals' costs.

Vertical integration and vertical mergers

58. 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.

59. In a vertical merger, two firms at two functional levels in the supply chain are integrated. 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.

60. In industries with high sunk costs such as telecommunications, vertical integration can also help reduce the risk of investment. For example, a reseller 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.

61. 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.

62. However, particularly in telecommunications, competitors at a downstream functional level (telecommunications service providers retailing to the public) may have to rely on a vertically integrated network provider to carry their services while at the same time compete with that network provider's downstream arm.

63. The leverage of market power from one functional level to another, 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 and facilities sharing regime under the Telecommunications Ordinance.

64. 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).

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

(1) there is market power at one or more of the functional levels involved in the merger;

(2) 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);

(3) 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

(4) the effect was likely to substantially lessen competition in that market.

Buying power

66. 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.

67. So far, the focus has been 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.

68. 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 in view of the presence of “bottleneck” facilities and networks, particularly the local loop. 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

69. Mergers can generate 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. To the extent that any efficiencies created by a merger are passed on in the form of lower prices or otherwise in the form of more aggressive competitive conduct, the merger may increase competition rather than lessen it.

70. 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 and effective competitor, competition in the market as a whole would be increased rather than lessened by the merger.

71. 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.

72. 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).

73. 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.

<u>Failing firm</u>

74. In certain cases, the acquisition of a failing firm or failed firm may not substantially lessen competition. Although the level of competition in the market arguably has decreased after acquisition, the decrease might not be attributed to the acquisition, if without the acquisition, the failing/failed firm would simply leave the market and is no longer a viable competitive force in the market. However, the TA will closely look at other factors, particularly how that firm's assets are disposed of, before coming to a final view.

75. The TA will examine is whether the assets of the failing firm or failed firm would remain in the market without the acquisition. Should that assets remain in the market and continue to act as a supplier, it acts as a competitive constraint in the market. The assets of the failed or failing firm may be acquired by an existing firm or by a potential new entrant that poses less competitive danger than the acquirer. Accordingly, in analysing the issue, the TA will look at three key questions:

(1) if the firm has not already failed, whether the firm is likely to experience commercial failure;

(2) 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

(3) 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.

76. If the answers to the above three questions are all positive, the firm is considered likely to fail and *the assets are likely to exit the market.* As the assets of the failing firm are to exit the market, apparently, 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. However, an issue that may arise in this scenario 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.

77. 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 such 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.

78. 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.

Import competition

79. Import competition can play an important role in restraining anti-competitive conduct for certain services market. For example, a consumer could use overseas international telephone card services for IDD calls (in such case, the services could be considered as being "imported" into Hong Kong).

80. Of course, in the provision of facilities-based carrier services where the facilities must be physically located in Hong Kong, the threat of import competition would not be as relevant.

Other factors – dynamic and technological changes

81. The telecommunications market is characterised by dynamic and rapid technological changes. In such an industry, market boundaries are not likely to remain constant. New players may emerge taking advantage of

the new technologies to compete for customers in the market. Certain factors that were entry barriers may not longer be barriers. The capability of firms to exercise market power after the mergers and acquisitions may be constrained by these changes. The TA will fully take into account the dynamic and technological changes occurring in the industry when assessing the effects on competition of mergers and acquisitions involving any licensed telecommunications carriers.

C. Time-frames for investigations

82. Section 7P(1), when enacted, will empower the TA to intervene in changes to ownership and control of carrier licensee already completed if the TA is of the opinion that the change has, or is likely to have, the effect of substantially lessening competition in a telecommunications market. Under the current thinking, the TA intends to specify in the M & A Guidelines the following time limits :

(1) time limit beyond which the TA is not empowered to initiate an investigation into the effect of the change – within 3 months after the transaction is completed or the fact of the completion is made known to the public, whichever is the later; and

(2) time limit for making a decision on a completed transaction – within 4 months after the initiation of the investigation.

83. In the case of a consideration of an application for consent made under section 7P(5), the TA will take a decision on whether or not the transaction warrants detailed consideration within a month, and if the case warrants detailed consideration, a further 4 months to complete the consideration.

84. The above time limits are comparable to those adopted by overseas jurisdictions. For those jurisdictions which adopt an ex post regime like UK, the Enterprise Act 2002 sets out that the Office of Fair Trading has to investigate a merger and acquisition and decide whether to refer it to the Competition Commission within 4 months. The Competition Commission has a further 24 weeks (i.e. 5-6 months) to carry out its investigation. For those jurisdictions which adopt an ex ante regime like EU, the European Commission is obliged to finish investigation within 5 months (1 month for

initial investigation, and 4 months for detailed investigation) from data of notification of the M&A.

Annex B

Extract of the Merger Guidelines in Australia

(English Only)

5. Assessing the competitive effects of a merger

5.1 The role of ss 50 and 50A is to contribute to the maintenance of competitive markets in Australia. A breach of s. 50 occurs or relief under s. 50A is available where a merger would have the effect, or be likely to have the effect, of substantially lessening competition in a substantial market for goods or services in Australia, in a State or Territory.

5.2 This section explains the approach the Commission proposes to adopt in assessing the likely competitive effects of a merger.[12]

5.3 To determine whether any particular acquisition breaches s. 50 or is eligible for relief under s. 50A requires an assessment of the following matters:

- what is the relevant market;
- is that market substantial; and
- will the acquisition be likely to substantially lessen competition?

The three elements are interrelated. Identification of the relevant market is an integral part of the evaluation of the competitive effects of a merger; and only when the relevant market has been delineated, can its substantiality be determined.

Substantial lessening of competition

5.4 Competition is a process of rivalry between firms, where each market participant is constrained in its price and output decisions by the activity of other market participants. In *QCMA* the Tribunal quoted with approval the report of the US Attorney-General's National Committee to Study the Antitrust Laws:

> The basic characteristic of effective competition in the economic sense is that no one seller, and no group of sellers acting in concert, has the power to choose its level of profits by giving less and charging more. Where there is workable competition, rival sellers, whether existing competitors or new or potential entrants in the field, would keep this power in check by offering or threatening to offer effective inducements ...[13]

5.5 The Tribunal went on to state:

> In our view effective competition requires both that prices should be flexible, reflecting the forces of demand and supply, and that there should be independent rivalry in all dimensions of the price-product-service packages offered to consumers and customers.

> Competition is a process rather than a situation. Nevertheless, whether firms compete is very much a matter of the structure of the markets in which they operate. The elements of market structure which we would stress as needing to be scanned in any case are these:
>
> (i) the number and size distribution of independent sellers, especially the degree of market concentration;
>
> (ii) the height of barriers to entry, that is the ease with which new firms may enter and secure a viable market;
>
> (iii) the extent to which the products of the industry are characterised by extreme product differentiation and sales promotion;
>
> (iv) the character of 'vertical relationships' with customers and with suppliers and the extent of vertical integration; and
>
> (v) the nature of any formal, stable and fundamental arrangements between firms which restrict their ability to function as independent entities. [14]

5.6 Competition is inhibited where the structure of the market gives rise to market power. Market power is the ability of a firm or firms profitably to divert prices, quality, variety, service or innovation from their competitive levels for a significant period of time.[15] Dawson J in *QWI* quoted approvingly the Kaysen and Turner definition of market power:

> A firm possesses market power when it can behave persistently in a manner different from the behaviour that a competitive market would enforce on a firm facing otherwise similar cost and demand conditions. [16]

Firms with market power have discretion over their price and output decisions; competitive firms are compelled to perform by the discipline of the market.

5.7 Section 50 differs from the other prohibitions contained in Part IV of the Act, because it regulates market structure, to prevent the creation of or an increase in market power and consequent anti-competitive conduct, rather than directly regulating that conduct. Such conduct, sometimes termed 'strategic behaviour', may be directed at altering the market structure itself, particularly barriers to entry. [17]

5.8 The conduct which is prevented by s. 50 may be unlawful, involving breaches of other sections of Part IV, or it may be lawful conduct which would nevertheless be anti-competitive, resulting in less efficient markets and consumer detriment. The first category would include conduct such as price fixing and predatory pricing; the latter would include conduct such as tacit price coordination or unilateral price rises.

5.9 The Cooney Committee in its 1991 report on *Mergers, Monopolies and Acquisitions* took the view that the best way to protect against misuse of market power is to prevent it being created in the first place. It quoted Treasury's submission that:

> The potential anti-competitive effects, which may be difficult and costly to detect and act against under current arrangements, may better be avoided by preventing mergers than by applying other sections of the TPA (and other legislation).[18]

5.10 The Attorney-General's second reading speech, when introducing the current threshold test under s. 50, reiterated the preventive nature of merger regulation:

> Merger regulation is an important element of any law aiming to preserve levels of competition. Mergers can lessen competition, potentially providing increased scope for price rises or collusive behaviour and lessening dynamic factors such as the rate of innovation. These possible detriments provide the rationale for government intervention in the area of mergers.[19]

5.11 Market power may be exercised either unilaterally by a single firm, or coordinated among firms. The unilateral exercise of market power does not depend on the cooperation of other market participants. A firm with unilateral market power can assume that its rivals will behave competitively in response to market prices, but nevertheless their capacity to defeat a price rise is limited. In contrast, the coordinated exercise of market power depends on the cooperative or accommodating actions of other market participants.

5.12 The primary reason for being concerned about mergers, especially between competitors, is that they increase the likelihood that the merged firm would have greater scope to set prices above the competitive level, or otherwise distort competitive outcomes, either alone or in coordination with other firms selling the same product. However, it is well recognised that mergers can also yield significant benefits. These sometimes take a traditional form — internal efficiencies such as economies of scale or scope or transactions savings through vertical integration — but it is also recognised that mergers are an important aspect of the overall 'market for corporate control', in which outsiders who believe they are able to improve the efficiency of a firm are prepared to bid above current market values. Hence, a blanket prohibition of mergers, even mergers between competitors, would be inappropriate. Only those mergers which would have the effect, or be likely to have the effect, of **substantially** lessening competition are prohibited.

5.13 The word substantial has been the subject of differing interpretations in different contexts and in relation to other sections of the Act. It has sometimes been interpreted as meaning 'real or of substance' and sometimes as 'large or weighty'. In relation to s. 47, Smithers J stated in *Dandy Power*:

> To apply the concept of substantially lessening competition in a market, it is necessary to assess the nature and extent of the market, the probable nature and extent of competition which would exist therein but for the conduct in question, the way the market operates and the nature and extent of the contemplated lessening. To my mind one must look at the relevant significant portion of the market, ask oneself how and to what extent there would have been competition therein but for the conduct, assess what is left and determine whether what has been lost in relation to what would have been, is seen to be a substantial lessening of competition. I prefer not to substitute other adverbs for 'substantially'. 'Substantially' is a word the meaning of which in the circumstances in which it is applied must, to some extent, be of uncertain incidence and a matter of judgement. There is no precise scale by which to measure what is substantial. I think in the context, particularly the penalty and other remedies for contraventions of the Act, and the nature of trade which is the subject of the Act, the word is used in a sense importing a greater rather than a less degree of lessening. Accordingly in my opinion competition in a market is substantially lessened if the extent of competition in the market which has been lost, is seen by those competent to judge to be a substantial lessening of competition. Has competitive trading in the market been substantially interfered with? It is then that the public as such will suffer ...
>
> Although the words 'substantially lessened in a market' refer generally to a market, it is the degree to which competition has been lessened which is critical, not the proportion of that lessening to the whole of the competition which exists in the total market. Thus a lessening in a significant section of the market, if a substantial lessening of otherwise active competition may, according to the circumstances, be a substantial lessening of competition in a market.[20]

5.14 The Explanatory Memorandum to the Trade Practices Legislation Amendment Bill 1992 states that:

> The term 'substantial lessening of competition' is used widely through the Principal Act. It is here intended to mean an effect on competition which is real or of substance, not one which must be large or weighty.[21]

This was clarified by the government during the Bill's passage through the Senate:

> In signifying its intention that that word as now proposed to be used in s. 50 should bear the meaning 'real or of substance', the Government intends that the test should apply to effects on competition which are not merely discernible but which are material in a relative sense in the impact they may have upon effective competition in the market place.[22]

5.15 Hence, the threshold in s. 50 would appear to be a relative one, either qualitative or quantitative. Where there is a reasonable likelihood that prices in the relevant product market will be maintained at a significantly greater level than they would be in the absence of the merger, or where competitive outcomes would be otherwise distorted, the Commission will consider there to be a substantial lessening of competition.

5.16 Increased exposure to global markets is placing pressure on domestic firms to reduce costs, improve quality and service and innovate in order to become more competitive. Mergers may be one means of achieving such efficiencies. Section 50 is concerned with the lessening of competition in a market, not with the competitiveness of individual firms. However, an acquisition which increases the competitiveness of the merged firm may also increase (or not substantially lessen) competition in a market.[23] While efficiencies generally arise as a question of public benefit, which falls for consideration under authorisation (see Section 6), they are relevant in a s. 50 context to the extent that they impact on the level of competition in a market.

5.17 The analysis of efficiencies in a s. 50 context must be integrated within the framework of competition analysis, rather than being considered as a 'trade-off' with competition effects, as might be done in an authorisation context (see Section 6). The relevant question is the effect or likely effect of the merger on firms' abilities and incentives to compete in the relevant market, including any effect flowing from efficiencies:

> The weight and significance accorded to different types of efficiencies should be a function of their magnitude and probability, the degree to which they likely will enable the merged firm not only to be a better competitor but to enhance (or not lessen) competition and thus benefit consumers, and the delay with which these consumer benefits are to be realized. [24]

5.18 In considering whether a merger is likely to substantially lessen competition, the Commission will not simply compare the pre- and post-merger scenarios. Section 4G defines a lessening of competition to include preventing or hindering competition. In some circumstances it may be that without the merger, competition would be likely to increase in the relevant market and that the merger will prevent or reduce the potential increase in competition. Hence, for example, in a market where entry is difficult, a merger which forestalls entry to the market may be considered to substantially lessen competition. Alternatively, a merger may replace an unstable oligopolistic coordination of prices with a single firm's market power. Although prices may be no higher after the merger than before, there is no longer the possibility that price coordination will break down and competition break out between the merged firms. This too could be considered a substantial lessening of competition.

5.19 The preceding discussion has centred on the exercise of market power and potential lessening of competition on the supply side of the market. However, it is also possible for market power to be exercised in an analogous way on the demand side. Where firms have market power on the demand side of the market they may be in a position to impose a significant price decrease, or other deterioration in terms, on sellers, depressing output below its competitive level.

5.20 In many industries the exercise of such market power may not be possible, even by a large buyer, because supply will be highly price elastic; either because unit costs are constant or declining over a large output range and/or because the product is traded internationally and domestic supply can be readily diverted to export markets. Firms will rapidly remove resources from the (domestic) market in response to any attempt to depress price below its competitive level.

5.21 However, there are significant exceptions to this. In particular, many primary industries which utilise scarce resources are characterised by less than perfectly elastic supply, reflecting diminishing returns from scarce resources. One of the few merger cases to reach the courts, *Australian Meat Holdings*, involved the creation of a dominant position in the acquisition of fat cattle in North Queensland.[25] Similarly, labour intensive industries, particularly where workers have limited alternative employment opportunities, such as clothing manufacture, are often characterised by less than perfectly elastic supply. In some industries, while long run supply may be highly price elastic, short run supply is often not; and if long run adjustments take an extended period, there may be the opportunity and incentive for considerable competitive damage to occur.

5.22 Furthermore, large buyers may be able to exert market power in other ways, e.g. influencing the terms and conditions of supply to their smaller rivals. Such strategic behaviour may in turn enhance their market power as suppliers in the downstream market.

The analysis of substantial lessening of competition

5.23 In evaluating whether a merger is likely to have the effect of substantially lessening competition in a substantial market, s. 50(3) requires regard to be had to a non-exhaustive list of ‘merger factors:

a) the actual and potential level of import competition in the market;

b) the height of barriers to entry to the market;

c) the level of concentration in the market;

d) the degree of countervailing power in the market;

e) the likelihood that the acquisition would result in the acquirer being able to significantly and sustainably increase prices or profit margins;

f) the extent to which substitutes are available in the market, or are likely to be available in the market;

g) the dynamic characteristics of the market, including growth, innovation and product differentiation;

h) the likelihood that the acquisition would result in the removal from the market of a vigorous and effective competitor;

i) the nature and extent of vertical integration in the market.

5.24 The Explanatory Memorandum to the Trade Practices Legislation Amendment Bill 1992 makes it clear that the list of factors in s. 50(3) is non-exhaustive and that some are interrelated:

> This is not an exhaustive list, and some of the factors are interrelated ... In considering a proposed acquisition, regard is to be had to the factors specified in the list, but of course there may be other factors that would need to be taken into account in any particular case, and the weight to be given to any factor, whether included in the list or otherwise found to be relevant, has to be determined in the context of the facts of the case. [26]

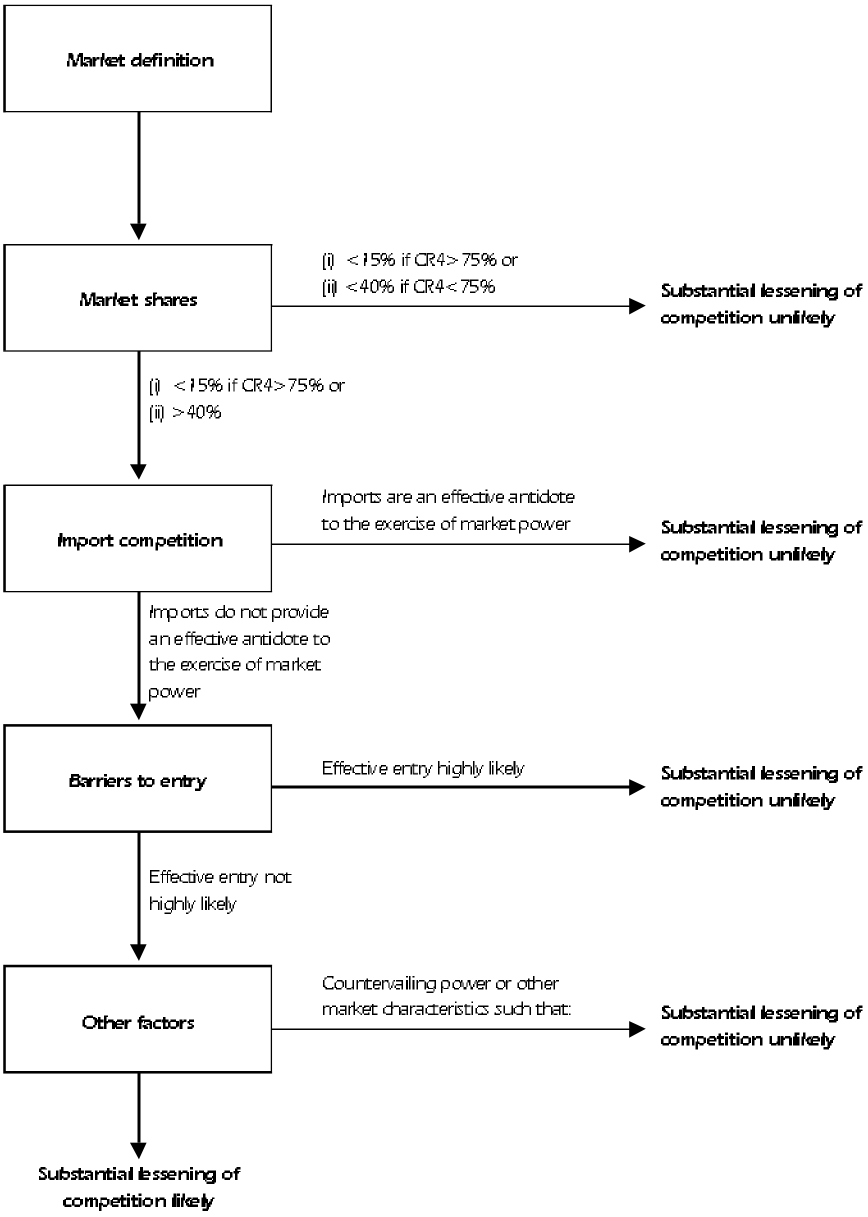
5.25 In analysing the likely effect of a merger or acquisition, the Commission has organised the statutory factors into a five stage evaluation process. The process is designed to give clear signals to the business community, wherever possible, as to the Commission's likely attitude to potential mergers; and to minimise the costs of compliance, data collection and analysis for both the parties to a merger and the Commission. This process is represented diagrammatically in Figure 1 (over page).

5.26 The first step is to define the relevant market, in its product, functional, geographic and time dimensions. This is a necessary prerequisite for the calculation of market shares and identification of other market characteristics, such as the height of barriers to entry. The Commission's approach to market definition and substantiality is discussed in paragraphs 5.34-5.86. If the market is not considered to be substantial, the Commission will take no further action.

5.27 Subsequent stages require the collection and analysis of increasingly complex data. At each stage, 'safe harbours' indicate mergers and acquisitions which are unlikely to be of concern to the Commission. However, parties cannot conclude without reference to the Commission whether or not an acquisition will be opposed. For example, the calculation of market shares hinges on the identification of the relevant market, which is often an issue of contention and the Commission will not necessarily accept the parties' market definition. Where mergers exceed the concentration thresholds the Commission will undertake its own analysis of the effectiveness of import competition and the height of barriers to entry, and this may not accord with submissions put forward by the parties.

5.28 If the market is considered to be substantial, the Commission will next consider market concentration. Concentration measures are used as a screening device to eliminate the need for detailed market studies where a merger is unlikely to give rise to any competitive concerns. The Commission has established concentration thresholds below which it is considered unlikely that a merger would give rise to a substantial lessening of competition. The basis for these thresholds is discussed in paragraphs 5.87-5.103. However, acquisitions resulting in concentration levels above the thresholds are not considered to give rise automatically to a substantial lessening of competition. Rather, the thresholds establish the need for further qualitative evaluation of market conditions.

Figure 1 The assessment of substantial lessening of competition



5.29 If the merger is not within the ‘safe harbour’ established by the concentration thresholds, the Commission will first consider the level and nature of import competition. The Commission’s concern will be to establish whether imports provide or are likely to provide a competitive discipline on the merged firm which is greater than would be indicated by their market share; and in particular whether import competition will be adequate to prevent the exercise of domestic market power. The Commission’s approach to this evaluation is discussed in paragraphs 5.104–5.114.

5.30 If import competition is not considered to impose an effective competitive discipline on the merged firm, the Commission will then go on to consider whether it is likely that new entrants will establish themselves in the market on a sufficient scale within a reasonable period of time to inhibit the exercise of market power by the merging firm. Barriers to entry are discussed further in paragraphs 5.115–5.128.

5.31 If effective entry is not considered a likely outcome the Commission will then consider other indicators of market structure and conduct which impinge on the likely competitive impact of a merger. These factors are discussed in paragraphs 5.129–5.179. They may have a positive or negative impact on the likely competitive effect of a merger. The Commission will consider the interaction of all relevant factors in reaching a conclusion on whether a merger is likely to substantially lessen competition.

5.32 The Commission will conclude that a merger or acquisition will result, or be likely to result, in a substantial lessening of competition in a substantial market only after consideration of all the statutory merger factors and any other relevant issues.

5.33 If the Commission concludes that a merger or acquisition is likely to substantially lessen competition, it will consider any actions which might be taken to alleviate the expected impact of the merger, and whether such actions can be covered by effective enforceable undertakings. Where parties consider there may be significant public benefits arising from the merger they may wish to apply for authorisation. Sections 6 and 7 discuss authorisation and enforceable undertakings in greater detail.

Market definition

5.34 The Act requires that the assessment of substantial lessening of competition be related to a market. Delineation of the relevant market also serves the purpose of focusing the analysis of competition effects.

5.35 Market definition is an integral part of competition analysis. It identifies the sellers and buyers who effectively constrain the price and output decisions of the merged firm. It identifies the relevant arena of competition. An appropriate definition of the market is the critical underpinning for the evaluation of 'substantial lessening of competition', the calculation of concentration ratios and the evaluation of import competition and barriers to entry.

5.36 In *QWI*, Mason C J and Wilson J said:

> In identifying the relevant market, it must be borne in mind that the object is to discover the degree of the defendant's market power. Defining the market and evaluating the degree of power in that market are part of the same process, and it is for the sake of simplicity of analysis that the two are separated. [27]

This approach was adopted by the Full Federal Court in *AMH*, where Pincus J stated:

> ... the process of identification of the relevant market must be carried out keeping in mind the object of doing so; in the instant case that is to determine whether the appellant was at the relevant time in a position to dominate the market, or was by the acquisition placed in such a position.
>
> The linking together of the process of definition of the market and its object implies some flexibility in the former. [28]

5.37 Section 4E provides that the term market 'includes a market for those goods and services and other goods and services that are substitutable for, or otherwise competitive with, the first-mentioned goods or services'. Merger factor (f) also requires the Commission to consider the extent to which substitutes are available in the market or are likely to be available in the market.

5.38 Section 4E was introduced following a recommendation of the Swanson Committee that the definition of market should:

> ... require that, in the determination of a 'market' for particular purposes, regard shall be had to substitute products which have a reasonable interchangeability of use and which have high cross-elasticity of demand, i.e. where a small decrease in the price of a particular product would cause a significant quantum of demand for a similar product to switch to the product in question. [29]

5.39 In addition to demand side substitutability, the Tribunal and the courts have established the need to consider supply side substitutability, where the same production and distribution facilities can be used to produce and sell two or more products. In *AMH*, Wilcox J stated:

> A market is the field of activity in which buyers and sellers interact and the identification of market boundaries requires consideration of both the demand and supply side. The ideal definition of the market must take into account substitution possibilities in both consumption and production. [30]

In *QWI*, Dawson J stated in the High Court:

> In setting the limits of a market the emphasis has historically been placed upon what is referred to as the 'demand side', but more recently the 'supply side' has also come to be regarded as significant. The basic test involves the ascertainment of the cross-elasticities of both supply and demand, that is to say, the extent to which the supply of or the demand for a product may be substituted for another, an important consideration in any definition of the market. [31]

5.40 A market involves four dimensions:

- product;
- geographic;
- functional; and
- time.

5.41 The merged firm is the starting point for delineating the relevant market. In this way the market which is identified is that which assists in the analysis of the likely competitive effects of the merger.[32] Market definition has a purposive tradition in Australian trade practices law.[33] A different market may be relevant for the analysis of a different merger or different conduct. For example, in the *Ansett* merger case the relevant market was found to be an Australian car rental market; whereas in the *Budget* case, concerning exclusive contracts for rental booths, the relevant market was found to be a market for rental car services at Auckland Airport.[34]

5.42 Substitutability may be thought of in terms of a price elevation test: what would be the response on the demand side and the supply side to a relatively small percentage increase in the price of the merged firm's product? As the Tribunal commented in *QCMA*:

> A market is the area of close competition between firms or, putting it a little differently, the field of rivalry between them.... Within the bounds of a market there is substitution - substitution between one product and another, and between one source of supply and another, in response to changing prices....
>
> It is the possibilities of such substitution which set the limits upon a firm's ability to 'give less and charge more'. Accordingly, in determining the outer boundaries of the market we ask a quite simple but fundamental question: if

> the firm were to 'give less and charge more' would there be, to put the matter colloquially, much of a reaction?[35]

5.43 Where the relevant market should be delineated is a question of degree. The Tribunal stated in *Tooth & Tooheys*:

> ... all competition or substitution does not cease at the outer boundaries of the market; the economy as a whole is a network of substitution possibilities in consumption and production; competition is a matter of degree. [36]

5.44 The process of market definition can be viewed as establishing the smallest area of product, functional and geographic space within which a hypothetical current and future[37] profit maximising monopolist would impose a small but significant and non-transitory increase in price (SSNIP) above the level that would prevail absent the merger.[38] More generally, the market can be defined as the smallest area over which a hypothetical monopolist (or monopsonist) could exercise a significant degree of market power. This would be possible only if all sources and potential sources[39] of close substitutes for the merged firm's products have been included in the definition of the market.

5.45 The process of establishing the market boundaries starts with the product, geographic and functional areas of supply covered by the merged firm. These are then extended in product, geographic and functional space to include all those sources, and potential sources, of close substitutes which would otherwise make it non profit-maximising for the hypothetical monopolist to impose a SSNIP or otherwise exercise a significant degree of market power. If consumers would switch their demand to close substitutes and/or firms would switch their production to supply the customers of the merged firm, it would not be profit maximising for the hypothetical monopolist to impose a SSNIP and the relevant market would need to be expanded to include these sources of substitute products.

5.46 Of course, history is unlikely to have provided us with such an experiment, and data is unlikely to be available on all the relevant elasticities, to establish precise market boundaries according to the above definition of the relevant market. However, the Commission considers this to be the appropriate analytical framework within which to make the necessary judgments in analysing the qualitative data and information it will necessarily have to rely on.

5.47 Note that it is the collective effect of substitution which determines what is in or out of the relevant market. A number of substitution possibilities, each of which is insufficient alone to defeat a SSNIP, may collectively have that effect.

5.48 The price elevation test does not require that all products included in the market should have the same price. Within a market there can be product differentiation. The relevant question is the degree of constraint imposed on the price and output decisions of the merged firm. As Wilcox J stated in *AMH*:

> The existence of price differentials between different products, reflecting differences in quality or other characteristics of the products, does not by itself place the products in different markets. The test of whether or not there are different markets is based on what happens (or would happen) on either the demand or the supply side in response to a change in relative price. [40]

5.49 Generally the question of price competition will be critical; if a product or supplier does not place any effective constraint on the price which the merged firm could charge for its product, the two products or suppliers will not be considered to be in the same market. However, there may be instances where 'commercial reality' makes it appropriate to include products in the same market despite limited price competition, e.g. between 'core' and 'fringe' suppliers.[41]

5.50 In order to establish the relevant market for a proposed merger the Commission is concerned to establish the potential sources of competitive, that is close, substitutes for the product(s) of the merging parties. Following the practice of the Tribunal and the Australian courts, the Commission will consider substitution possibilities on both the demand and supply side when identifying the competitive constraints which delineate the relevant market.

5.51 On the demand side the Commission will examine which goods or services consumers consider to be close substitutes for the merged firm's product and which geographic sources of supply they consider to be substitutable. If, in the event of a significant price rise or equivalent exercise of market power by the merged firm, consumers would switch to purchasing these alternatives to the extent of defeating such a price rise, these products and sources of supply will be included in the relevant market.

5.52 On the supply side the Commission will consider which suppliers could, without significant investment, switch their production and/or distribution facilities to supply a substitute product to that supplied by the merged firm, or switch from supplying another geographic area to that supplied by the merged firm. If, in the event of a significant price rise or equivalent exercise of market power by the merged firm, these suppliers would switch their supply to the extent of defeating the price rise, these suppliers will be included in the relevant market.

5.53 Market entry is distinguished from supply side substitution by the requirement for significant investment in production, distribution or promotion. For example, producers of T-shirts and shoes may be able to readily switch production and distribution facilities from supplying one size of garment or shoe to supplying another size. On the other hand, while a cannery could physically switch from the production of dog food to the production of canned peaches, the firm may need to make a significant investment in promoting the product for it to gain market acceptance.

5.54 In some cases it will be appropriate to define separate markets for different groups of customers. This will principally occur where a supplier with market power can effectively price discriminate between groups of customers characterised by different demand elasticities and/or competitive constraints, where arbitrage is ineffective. If competitive sources of supply were available and/or arbitrage were possible, price discrimination would not be possible and a single market would be defined.

5.55 When considering substitution possibilities it is sometimes necessary to consider a chain of substitution creating a 'ripple effect', or the 'linking principle'.[42] If A and B are substitutable and B and C are substitutable, should A and C be considered to be part of the same market? This question arises most frequently in relation to geographic market definition, but may also arise in relation to product market definition, particularly markets for differentiated goods and services. The argument has received a mixed reception from the courts. It was rejected in *TNT* but found favour in *Ansett*. [43, 44]

5.56 The Commission considers that the relevance of ripple effects depends on whether they constrain the price and output decisions of the merged firm. This in turn will depend on the degree of substitutability between different products or locations. For example, many retail markets are characterised by a continuum of geographic substitution across metropolitan areas, although stores at either extremity of the market are not in direct competition. If a significant price increase in one suburb would be defeated by customers shopping in neighbouring suburbs, where prices are in turn constrained by prices in the next suburbs, and this effect continues across the metropolitan area, the latter will be the relevant geographic market. By contrast, many wholesale markets are characterised by distribution over broadly State-based regions, with limited overlapping substitution at the edges. Such a limited overlap will not generally be sufficient to expand the relevant geographic market, since transport costs mean that substitution would be insufficient to render unprofitable a significant price increase in one State.

5.57 Market definition and/or the effect of a merger in such a product or geographic spectrum will also depend on the relative location of the parties in that spectrum. Where firms are adjacently located in the spectrum, the relevant market may be a narrow one and competition concerns are more likely to arise. Identification of sub-markets may also be a useful tool of competition analysis in this context (see paragraphs 5.77–5.78).

5.58 Delineation of the relevant **product** market (or markets) requires identification of the goods and/or services supplied by the merged firm and sources, or potential sources, of substitute products. Starting with the product (or products) supplied by the merged firm, each product market is gradually expanded to incorporate those firms which supply, or would supply, a closely substitutable product in the event of a significant price rise, or equivalent exercise of market power, by the merged firm.

5.59 In establishing the relevant product dimension of the market the Commission will have regard to the following types of information:

- end use of the product and potential substitutes;
- physical and technical characteristics of the product and potential substitutes;
- costs of switching purchases between the product and potential substitutes;
- views and past behaviour of buyers regarding the likelihood of substitution between products;
- costs of switching production and distribution systems from another product line to a product which is closely substitutable with the relevant product;
- views, business records and past behaviour of suppliers regarding the impact of price and marketing decisions by the suppliers of potential substitute products on their own pricing and marketing decisions; and
- relative price levels and price movements of the product compared to potential substitutes.[45]

5.60 In some cases it may be appropriate to define 'cluster' markets, comprising a bundle of related products, where the costs of unbundling mean that suppliers of the component products are unable to defeat a SSNIP by a hypothetical monopolist supplying the whole bundle of products.[46] These unbundling costs could be costs incurred directly by the consumer of unbundled products, e.g. additional transaction costs, or additional costs incurred by the suppliers of single products, e.g. diseconomies of scope, which are then reflected in the relative prices of bundled and unbundled products. However, these unbundling costs, like other determinants of the relevant market, may change over time. For example, when the Commission considered the Westpac/Challenge merger in 1995, it took the view that there was a cluster market for banking services. The subsequent development of effective competition from single product suppliers resulted in a different approach in 1997 when it considered the Westpac/Bank of Melbourne merger. In that case a number of separate product markets were identified for home loans, personal loans, transaction accounts and credit cards, but a smaller 'cluster' market for small business banking services was identified, based on the credit risk and information advantages of supplying a full range of services to small business.

5.61 Delineation of the relevant **geographic** market (or markets) involves the identification of the area or areas over which the merged firm and its rivals currently supply, or could supply, the relevant product and to which consumers can practically turn. Starting with the geographic area (or areas) supplied by the merged firm, each geographic market is gradually expanded to incorporate sources of supply to which consumers would turn and firms which supply, or would supply, the relevant product into that area in the event of a significant price rise, or equivalent exercise of market power, by the merged firm.

5.62 In establishing the relevant geographic dimension of the market the Commission will have regard to the following types of information:

- the convenience to customers of accessing alternative sources of supply;
- the costs of switching to alternative sources of supply;
- views and past behaviour of buyers regarding the likelihood of switching between geographic sources of supply;
- the costs of transportation or access to the alternative sources of supply;
- the perishability of the product;
- any regulatory or other practical constraints on suppliers selling to the customers of the merging firms;
- the costs of extending or switching production and distribution systems to supply the customers of the merging firms;
- views, business records and past behaviour of suppliers regarding the impact of price and marketing decisions in one geographic area on supply from another geographic area; and
- the relative price levels and price movements of different geographic sources of supply.[47]

5.63 Section 4E defines a market to be a market 'in Australia', while s. 50(6) defines a market to be a market 'in Australia, in a State or in a Territory'. Arguably, the Act does not require that the relevant market be defined as wholly within Australia, only that at least some part of it be in Australia. For practical purposes there will generally be significant discontinuities in substitution between domestic and imported supply. In most cases the Commission will define the relevant market to be Australia or a part of Australia (but including imports). However, in some circumstances it may be relevant to define the market as broader than Australia, e.g. trans-Tasman, or even a world market. For example, in its examination of the 1996 RGC/Cudgen RZ merger and the 1998 RGC/Westralian Sands merger the Commission accepted that there were world markets for the supply of feedstock for chlorine-route pigment production and for the supply of zircon. However, the international constraint must operate at the relevant functional stage; e.g. in *AMH* the Court defined a North Queensland fat cattle market despite the fact that beef is internationally traded. The international market price for beef might impose an upper limit on the price that could be charged for fat cattle by sellers, but it would not impose a lower limit on the price which could be extracted by buyers of those cattle, because fat cattle were not internationally traded.

5.64 Delineation of the relevant **functional** market requires identification of the vertical stages of production and/or distribution which comprise the relevant arena of competition. This involves consideration of both the efficiencies of vertical integration, commercial reality and substitution possibilities at adjacent vertical stages.

5.65 Where there are overwhelming efficiencies of vertical integration between two (or more) stages, it is inappropriate to define separate functional markets. Brunt made the following observation in relation to *QWI*:

> The market is the network of actual and potential transactions between buyers and sellers of goods or services which are, or could be, close substitutes. Under what circumstances, we may ask, would the potential for transactions not exist? Answer: when there are such efficiencies of vertical integration, as between y-bar and star pickets, that market coordination between buyers and sellers is superseded by in house coordination. There would, in such a case, be no functional split to create market transactions between stages of production.[48]

5.66 The current vertical structure of an industry may not be indicative of the relative efficiency of inter or intra firm coordination, as indeed was the case in *QWI*. However, for the purposes of merger evaluation the 'commercial reality' of current industry practice may mean that defining a single functional market most accurately reflects the arena of competition, even if the vertical efficiencies do not appear to dictate it. For example, when considering the proposed merger of the Bristile and Pioneer roof tile businesses in Western Australia the Commission defined a market for the 'manufacture, supply and fix' of roof tiles.[49] For newly deregulated utilities, where the industry has traditionally been organised as a vertically integrated government monopoly unresponsive to the relative efficiency of such a structure, the Commission will need to consider the likely evolution of vertical relations and the scope for market transactions at various vertical stages.

5.67 However, where vertical integration or vertical relationships are incomplete, or even non existent, vertical stages adjacent to the merged firm may still be relevantly included in the same functional market if close substitution possibilities, either product and/or geographic, at the adjacent level (and occasionally between levels) would constrain the merged firm from imposing a significant increase in price, or equivalent exercise of market power. For example, in *QIW* the Tribunal defined a single functional market for the distribution of groceries to the public, including wholesale and retail stages, reflecting the constraint imposed on the conduct of independent wholesalers by downstream competition between their independent retail customers and the vertically integrated chains.[50]

5.68 Product substitution primarily requires consideration of the extent to which vertically integrated suppliers constrain the price and output decisions of non-integrated suppliers. If the merged firm supplies an input A to downstream producers of B, and competition between those producers of B and integrated producers of A and B is sufficient to constrain the price and output decisions of the merged firm in relation to product A, the integrated suppliers will be included in the relevant market; either by defining the market to include both A and B, or by including the output of both integrated and non-integrated firms in a market for A. Either approach will incorporate all relevant substitution possibilities. Which approach is preferred will depend on what most accurately describes the arena of competition. For example, in the groceries example above the Tribunal's approach reflected the retail focus of competition between the independent wholesalers and retailers and the vertically integrated chains. However, when considering a number of mergers between vertically integrated miller-bakers, who compete with both independent millers and bakers, the Commission has defined separate functional markets for flour and bread, reflecting the two distinct arenas of competition (the former including other users of flour), but included internal sales in the flour market to reflect the constraint they impose through downstream competition in the bread market.

5.69 In relation to geographic substitution it is also necessary to consider whether the geographic markets in which the customers of the merged firm supply their output are broader than the geographic area in which the merged firm operates; and the extent to which downstream suppliers from different geographic areas constrain the upstream pricing of the merged firm. If the merged firm supplies an input A to downstream producers of B over a geographic area C, and competition between producers of B in area C and producers of B in area D is sufficient to constrain the price and output decisions of the merged firm in relation to the supply of product A in area C, the suppliers of A and B in area D will be included in the relevant market.

5.70 In establishing the relevant functional market the Commission will have regard to the types of information listed in paragraphs 5.59 and 5.62, to establish the relevant product and geographic market in which the customers of the merged firm operate. Where that product or geographic market incorporates sources of substitution and competitive restraint which have not already been incorporated in the product and geographic market identified in relation to the merged firm, the Commission will consider the following types of information to determine whether those constraints are sufficient to prevent the merged firm significantly increasing price, or an equivalent exercise of market power:

- the proportion of customers' costs represented by the merged firm's product;
- the gross margin of the merged firm in proportion to the total price charged to its customers;
- views, business records and past behaviour of suppliers regarding the impact of prices and marketing decisions by the downstream rivals of its customers on their own pricing and marketing decisions; and

- the relative price levels and price movements of the merged firm and the downstream rivals of its customers.[51]

5.71 The **time** dimension of the market refers to the period over which substitution possibilities should be considered.[52] In *Tooth & Tooheys* the Tribunal stated:

> It is plain that the longer the period allowed for likely customer and supplier adjustments to economic incentives, the wider the market delineated. In our judgement, given the policy objectives of the legislation, it serves no useful purpose to focus attention upon a short-run transitory situation. We consider we should be basically concerned with substitution possibilities in the longer run.[53]

The Commission will consider substitution possibilities over the longer term, but still in the foreseeable future, that will effectively constrain the exercise of significant market power by the merged firm.

5.72 The Commission recognises that competition and substitution are dynamic processes:

> ... effective competition is fully compatible with the existence of strictly 'limited monopolies' resting upon some short run advantage or upon distinctive characteristics of product (including location). Where there is effective competition, it is the ongoing substitution process that ensures that any achievement of market power will be transitory.[54]

5.73 Thus, for example, the New Zealand Court of Appeal confirmed a New Zealand High Court decision that there was a New Zealand album market rather than a separate market for each album.[55] Richardson J stated:

> Viewed in relation to product and time the single album definition of market ignores commercial realities. It focuses on short run phenomena. It presents a snapshot rather than a moving picture of continuing commercial activity. ... The emphasis on product differentiation arises precisely because there is a range of products competing for the consumer's attention. And the movement of albums in and out of the charts and their constantly shifting positions are clear evidence of the manner in which, and the extent to which substitution takes place.[56]

5.74 Planned deregulation may change the relevant product and geographic market boundaries in some industries (see paragraph 3.6). Whether or not the Commission defines the relevant market according to current substitution possibilities will depend on the timing and certainty of deregulation, the extent to which current price and output decisions are constrained by future substitution possibilities, and the extent of anti-competitive detriment that is likely to occur prior to deregulation. In *AGL* (concerning the gas industry), the Tribunal referred to 'a market expanding over time', in both its geographic and product dimensions.[57]

5.75 Where substitution requires significant new investment by producers or consumers these sources of competition will not be included in the relevant market, but will be considered under market entry.

5.76 Significant excess capacity in an industry may result in geographic movements of product that would not be sustainable in an equilibrium situation. Where such effects are likely to be transitory the Commission does not consider them to be a relevant basis to determine the geographic market.

5.77 In some cases it may be useful to identify sub-markets. In Australia sub-markets are used to refer to segments of markets which are characterised by some discontinuity in substitution possibilities or special characteristics. In *Tooth & Tooheys*, the Tribunal stated:

> Within the bounds of the market, substitution possibilities may be more or less intense, and more or less immediate: the field of substitution is not necessarily homogeneous but may contain within it sub-markets wherein competition is especially close or especially immediate. There may be, too, certain key sub-markets such that their competitive relationships have a wider effect upon the functioning of the market as a whole. In these matters we have found that the identification of sub-markets may be rather helpful in clarifying how competition works. [58]

5.78 Sub-markets are used as a tool to analyse the functioning of the market as a whole, but not as a legal standard of liability.[59] In *Tooth & Tooheys*, licensing restrictions within the Sydney and Newcastle areas had a significant impact on competition in the broader NSW market. For a merger to breach s. 50 there must be a substantial lessening of competition in the market as a whole; although its effects may be primarily or entirely felt in particular sub-market(s).

5.79 The identification of the precise market boundaries may be difficult on the basis of available evidence regarding substitution possibilities. It is critical to delineate the market precisely only to the extent that is necessary to determine the competitive effect of a merger.

5.80 While most mergers will involve the identification of markets where there is actual trade in goods or services, this is not necessarily the case. In *QWI* Deane J stated:

> The most that can be said is that ‘market’ should, in the context of the Act be understood in the sense of an area of potential close competition in particular goods and/or services and their substitutes. [60]

and:

> ... a market can exist if there be the potential for close competition even though none in fact exists. A market will continue to exist even though dealings in it be temporarily dormant or suspended. Indeed, for the purposes of the Act, a market may exist for existing goods at a particular level if there exists a demand for (and a potential for competition between traders in) such

> goods at that level, notwithstanding that there is no supplier of, nor trade in, those goods at a given time — because, for example, one party is unwilling to enter any transaction at the price or on the conditions set by the other.[61]

Dawson J stated:

> ... the existence or non-existence of sales of a product cannot conclude whether a market exists or not. It must be sufficient to constitute a market that there is a product for exchange, regardless of whether exchange or negotiation for exchange has actually taken place.[62]

For example, a proposed acquisition may involve the prevention of trade and competition in an intermediate product by forestalling entry. This is likely to be particularly important in delineating functional market boundaries (see paragraphs 5.64–70).

5.81 In some cases mergers may occur between firms which are involved in the development or production of new products where no trade currently exists. Such a merger may have a substantial effect on potential competition.

Substantial market

5.82 Section 50 applies only to acquisitions in a substantial market. This qualification was introduced into the Act to remove *de minimus* matters from scrutiny.

5.83 The courts have not considered the meaning of the word ‘substantial’ in relation to market. In other contexts the courts have sometimes interpreted ‘substantial’ to mean real or of substance and sometimes to mean large, weighty or big. Thus, it can be used in either a relative or absolute sense.

5.84 In any particular case, it will be a matter of judgment whether a market is considered to be substantial. The Commission will take account of both quantitative and qualitative issues.

5.85 While a market may be small relative to the national economy, it may be substantial in the context of a State or regional economy.

5.86 Furthermore, whether or not a market is considered substantial will depend on the pervasiveness of the prices and outputs determined in that market. Thus, for example, a product which is an essential but small ingredient in the production of one or more other products with large markets, may be considered to be substantial in this sense.

Market concentration

5.87 Merger factor (c) requires the Commission to consider the level of concentration in the market. Market concentration refers to the number and size of participants in the market. A concentrated market is a necessary but not sufficient condition to enable the exercise of market power. If the relevant market is properly defined, a firm or firms will not normally be able to exercise market power in the absence of a significant market share.

5.88 A merger which increases the level of concentration in a market may reduce competition by increasing the unilateral market power of the merged firm and/or increasing the scope for coordinated conduct among remaining competitors.

5.89 The unilateral exercise of market power requires that a firm has sufficient control of a market, such that it can profitably 'give less and charge more' without being threatened by competing suppliers. For undifferentiated products this normally requires that a firm controls a substantial portion of capacity. The larger the percentage of total market supply which a firm accounts for, the less severely it must restrict its own output in order to procure a given price increase and the more likely such conduct is to be profitable. For differentiated products, brand loyalty and related factors may further inhibit smaller rivals from successfully preventing the unilateral exercise of market power. Market shares will generally be a good indicator of consumer preferences and brand loyalty for the firms' products; hence the greater the market share of the merged firm, the more potential switching between differentiated products will have been internalised within the firm.[63]

5.90 Firms with unilateral market power can also undertake 'strategic behaviour', such as predation, which may in turn affect market structure and market power. In its consideration of the proposed merger of Bristile and Pioneer's West Australian roof tile operations, the Commission was concerned that the creation of a clear market leader could result in price leadership and/or predation.

5.91 A reduction in the number of firms operating in a market increases the scope for coordinated conduct, including both overt and tacit collusion. It becomes easier to reach agreement on the terms of coordination, to signal intentions to other market participants and to monitor behaviour. More even market shares may increase the commonality of interest between market participants in some circumstances. In other situations the creation of one firm with a large market share may increase the likelihood of price leadership.

5.92 Furthermore, where market structure has been highly concentrated and market shares have been stable for a long period, this will tend to suggest that there are barriers to the entry of new market participants which might otherwise undermine and constrain the exercise of market power.

5.93 Since market shares are often more readily available than other information, they are a relatively low cost means of screening out many mergers which are not likely to result in a substantial lessening of competition. The Commission has adopted concentration thresholds below which it is unlikely to intervene in a proposed merger. The thresholds have been established on the basis of the Commission's historical experience of mergers and knowledge of current market structures.

5.94 The thresholds have been reviewed following a recommendation from the Industry Commission (now the Productivity Commission) to raise them. However, significant competition issues were found to arise in mergers which only just breached the thresholds, including one merger which the Commission considered breached the Act. The Commission has therefore decided to retain the existing thresholds.[64]

5.95 If the merger will result in a post-merger combined market share of the four (or fewer) largest firms (CR4) of 75 per cent or more and the merged firm will supply at least 15 per cent of the relevant market, the Commission will want to give further consideration to a merger proposal before being satisfied that it will not result in a substantial lessening of competition.[65] In any event, if the merged firm will supply 40 per cent or more of the market the Commission will want to give the merger further consideration. The twofold thresholds reflect concerns with the potential exercise of both coordinated market power and unilateral market power.[66]

5.96 Below these thresholds the Commission is unlikely to take any further interest in a merger. However, it must be emphasised that the calculation of market shares is critically dependent on market definition. Parties should be aware that the Commission will not necessarily accept their identification of the relevant market.

5.97 Occasionally an acquisition which falls below the thresholds may provide the merged firm with such a strategic advantage in the market that it could have the effect of substantially lessening competition. This is possible in auction type situations, where two small suppliers of (product or spatially) differentiated products provide the closest substitute to each other, or where an incumbent acquires a small innovative new entrant.[67]

5.98 The Commission will also want to consider the vertical independence of remaining rivals in a market before determining that a merger is unlikely to lessen competition (see paragraph 5.152).

5.99 A further relevant consideration is the extent of the increase in concentration. In many situations the acquisition of a small market player, resulting in a small increase in concentration, will have little effect on competition. However, in some instances a small increase in concentration may involve the removal of a market participant which played a significant role in maintaining a competitive market, e.g. by undermining attempts to coordinate market conduct. In other circumstances a small acquisition may form part of a pattern of creeping acquisitions, which have a significant cumulative effect on competition. Vertical mergers may involve no increase in concentration, but may enable the extension of market power into a vertically related market (see paragraph 5.153).

5.100 Market shares may be calculated with reference to capacity, sales volumes or sales values. Each conveys different information regarding the likely impact of a merger on competition. The Commission will place greatest weight on data which best reflects firms' future competitive significance. Capacity figures may be particularly useful as an indicator of market power in markets for undifferentiated products.[68] However, sales figures provide a better indication of firms' actual position in the market, which may reflect their access to distribution networks or the value of brand loyalty. The dollar value of sales is a particularly useful indicator of competitive strength in markets characterised by product differentiation and brand loyalty.

5.101 Imports should be included in the calculation of market shares and concentration ratios. Where a company is both an importer and a local manufacturer, the two types of supply should be treated as a single market share.

5.102 Post-merger market shares and concentration can generally be computed only on the basis of historic sales patterns, which may not reflect likely future patterns after the merger. There may be, for example, substantial new capacity coming on stream in a manufactured product market, there may be new licences about to be issued in a broadcasting market, or some firms may be running out of reserves in a primary product market. More generally, business customers are often reluctant to become dependent on a single supplier and may shift their custom if two suppliers merge. The Commission will consider any arguments which suggest that future market shares are likely to be significantly different from historic shares.

5.103 If the proposed merger does not fall within the 'safe harbours' established by the concentration criteria, the Commission will need to give close consideration to other merger factors to determine whether or not the merger is likely to result in a substantial lessening of competition.

Import competition

5.104 Merger factor (a) requires the Commission to consider the actual and potential level of import competition in the market. In an open economy such as Australia the importance of giving special consideration to the role of actual and potential import competition in considering the likely effect of a merger on competition is widely recognised.

5.105 Import tariffs and quotas have now been removed from most industries. However, industry standards may act as non-tariff barriers to trade, e.g. in plastics and steel products. If import competition, or the potential for import competition, is an effective check on the exercise of domestic market power, it is unlikely that the Commission will intervene in a merger. However, the assessment of actual and potential import competition needs to be undertaken with care.

5.106 As discussed at paragraph 5.63, the Commission will generally define the relevant geographic market to be Australia or a part of Australia and initially treat the market share of imports as indicative of their competitive role in that market. The Commission will then take account of arguments that the market share of imports is not indicative of their competitive role.

5.107 The Commission recognises that in some markets, market shares may understate the competitive constraint provided by imports, because of the potential to expand the supply of imports rapidly in response to higher prices. This will often be true in commodity markets.

5.108 However, it is also relevant to consider the price at which import supply becomes elastic. If that price is significantly higher than a competitive market price, there will still be scope for the merged firm to exercise market power by limit pricing to the import parity price. For example, the import parity price may be inflated by tariffs or transport costs; or a competitive domestic price may be the export parity price. In 1993 the Commission objected to a joint venture proposal between CSR and Mackay sugar because import tariffs and high freight costs raised the import parity price to a level which did not provide an effective constraint on refined sugar prices in Australia. However, in 1997 the Commission did not object to a similar proposal following reductions in freight rates and the imminent removal of import tariffs, reducing the import parity price to a level which would provide an effective constraint on Australian refined sugar prices. In some markets imports may even constrain domestic prices at levels below those which would deliver a normal rate of return.

5.109 In other cases market shares will overstate the likely role of imports in constraining the conduct of the merged firm. The fact that imports have established a small market share does not necessarily imply that they could expand in response to the exercise of market power by the merged firm. For example, imports may occupy a particular market niche, while the costs of importing may prohibit ‘mass market’ competition. In some markets, ‘buy Australian’ policies may reserve a significant percentage of sales for domestic suppliers. In other instances, imports may be sporadic to overcome shortages in domestic supply but would be considered a poor substitute for domestic supply on a regular basis. In some markets there is limited importing by wholesalers or retailers, but expansion may require significant investment in distribution facilities. As noted in paragraph 5.105, domestic industry standards may also create non-tariff barriers to effective import competition.

5.110 The Commission will also take account of licensing arrangements in relation to imports. For example, if domestic suppliers control the bulk of imports through exclusive licences, there will be little scope for independent import competition. Alternatively, if exclusive rights are held by independent importers, it will be necessary to consider whether rights to competitive products are held by a range of importers or aggregated by a few, and hence their likely behaviour post-merger.

5.111 The Commission has not objected to any merger where comparable and competitive imports have held a sustained market share of 10 per cent or more for at least three years, and — as an indicative guideline — is unlikely to do so. However, it should be emphasised that it is not the historical share of imports that is significant, but their potential to constrain the price and output decisions of the merged firm. Recent examples of mergers which the Commission has not opposed in concentrated markets on the basis of effective or potentially effective import competition are KAAL/Comalco (aluminium sheet and foil), Alcan/Comalco (aluminium extrusions), Consolidated Alloys/Radiant (lead sheeting), GNB/Australian Battery Company (automotive and industrial batteries), Dow Chemical/Huntsman Chemical (polystyrene), ICI/Auseon (PVC), ANI/National Castings (steel and alloy iron castings), Allied Colloids/Imdex (synthetic flocculants), Caroma/Fowler (vitreous china toilet bowls and hand basins), UCB/Orica (oriented polypropelene). However, it would still be prudent in such cases for the merging parties to advise the Commission of their plans given the necessarily qualitative nature of any assessment of import competition.

5.112 In considering the role of imports the Commission may require the following types of information:

- information that domestic suppliers are consistently inhibited in their pricing by the pricing of actual or potential import supplies;
- the extent to which imports are independent of domestic suppliers or the extent to which they are brought in under the licence of the merging firms and/or other domestic suppliers;
- whether existing import supply routes could accommodate a significant expansion of supply, without the need to invest in sunk costs of distribution, advertising and promotion;
- the extent to which imports are closely substitutable for the products of the merging firms from the perspective of their customers, without the need for supply substitution by the overseas producers;
- tariff levels and non-tariff barriers to trade, including industry standards;

- changes to tariff levels and other forms of protection which are likely to occur over the next two or three years;
- information that overseas corporations have concrete plans to enter the Australian market;
- data on the impact of exchange rate changes on the viability and market share of imports;
- information about the availability and potential availability and influence of imports in different parts of Australia; and
- practical difficulties in importing versus local supply in relation to the nature of the product and its demand, e.g. perishability (both physical and fashion related), the importance of rapid supply response and the costs of holding inventories.

5.113 In some markets import competition may impose a constraint on the merged firm via a downstream market. This is a parallel issue to part of the question of functional market definition discussed in paragraphs 5.67–5.70. If the merged firms' customers are closely constrained in their ability to pass on input price increases by effective import competition, the merged firm may not be able to significantly increase its prices. Similar information will be relevant here to that listed in paragraph 5.70 in relation to functional market definition.

5.114 Where a merger raises competition concerns on the demand side of a market, exports can play a similar role in constraining the market power of buyers to the role played by imports in constraining the market power of suppliers. That is, if the merged firm buys from producers in an export industry it will not be able to depress domestic prices below competitive levels because this would result in supply switching to export markets. Hence the merger would be unlikely to substantially lessen competition.

Barriers to entry

5.115 Merger factor (b) requires the Commission to consider the height of barriers to entry to the market. Even where a merger breaches the concentration thresholds and import competition is not effective, if the market is characterised by low barriers to new entry incumbent firms are likely to be constrained by the threat of potential competition to behave in a manner consistent with competitive market outcomes. However, if there are significant barriers to the entry of new suppliers, an increase in concentration to levels above the Commission's thresholds, in the absence of significant import competition, is likely to give rise to a substantial lessening of competition.

5.116 Barriers to entry can be any feature of a market that places an efficient prospective entrant at a significant disadvantage compared with incumbent firms. They may consist of sunk costs; legal or regulatory barriers; access to scarce resources enjoyed by incumbent firms; economies of scale and scope; product differentiation and brand loyalty; and the threat of retaliatory action by incumbents.

5.117 Sunk costs are costs which are unrecoverable on exit, creating a risk from entry. Their extent depends on factors such as capital specificity, whether there are developed markets in rental of equipment and requirements for investment in advertising and promotion.

5.118 Legal and regulatory barriers such as licensing requirements, planning or environmental controls or industry standards, may directly limit the number of competitors in a market, or may add to the sunk costs of entry through specific capital requirements.

5.119 Scarce resources may consist of physical resources such as mineral deposits or intellectual resources such as patents.

5.120 Economies of scale and scope, both plant and multi-plant, may inhibit entry depending on expected post-entry prices, which in turn will depend on factors such as the minimum efficient scale of entry, cost penalties associated with sub-optimal plant utilisation, price elasticity of demand and market growth.

5.121 Product differentiation and brand loyalty may affect both the level and elasticity of demand faced by a new entrant compared to an incumbent firm and add to the sunk cost requirements of entry in the form of advertising and promotion costs.

5.122 The threat of retaliatory action by incumbents may also create a barrier to new entry. Potential entrants may anticipate predatory behaviour by incumbent firms on the basis of past behaviour in this or other markets. Such threats may pose an effective deterrent, even in markets which may otherwise appear to have relatively low barriers to entry.

5.123 The 'height' of barriers to entry indicates the extent to which incumbents can raise the market price above its competitive level without attracting entry. It is not necessary for a merger to increase barriers to entry for it to be anti-competitive; only that significant barriers exist, providing incumbents with discretion in pricing and other conduct. If the merger also increases barriers to entry, the anti-competitive effects are likely to be more severe.

5.124 In considering the height of barriers to entry, the Commission will have regard to the following types of information:

- sunk costs in both production capacity, accessing shelf space, advertising and promotion;
- any regulatory restrictions on entry, such as licensing requirements and industry standards;
- any requirements for scarce inputs;
- the extent of brand loyalty enjoyed by incumbents;
- minimum efficient scale of operation;
- cost penalties for operating at sub-optimal capacity;
- price elasticity of demand;
- market growth or decline; and
- potential response of incumbents to new entry.

5.125 Dr Brunt has provided the following useful test of what constitutes a significant barrier to entry for trade practices purposes:

> The essential test for whether or not there is a significant barrier to entry can be expressed simply enough: it is whether the threat of entry of whatever kind will constrain incumbents to behave competitively. It follows that neither initial entry nor eventual established supply must necessarily be of the full-line variety. Leading firms can be constrained by a collection of more specialised rivals. Firms may enter at one scale or one product-range and grow to another. However we cannot speak of easy entry if the only viable entry is that which occurs at the fringe of the market in competition with that fraction of the incumbents' business that has high marginal costs; or if the only viable entry is of the fringe products that fail to attack the incumbents' core business. There must be, in Richard Schmalensee's phrase, 'real pressure on established firms' profits'.[69]

5.126 The Commission considers that effective entry is that which is likely to have a market impact within a two year period, either by deterring or defeating the attempted exercise of significant market power by the merged firm. In some markets the threat of entry is sufficient to constrain firm conduct. In others, actual entry will be required. The latter would require entry on a sufficient scale and which offered a product sufficiently attractive to consumers to be effective.

5.127 When the market impact of actual or potential entry on the merged firm's conduct occurs is likely to vary with the nature of the goods or services supplied. For example, where purchases are one-off, such as building services, actual entry may be required before there is any impact on current conduct, since high prices today are unlikely to deter tomorrow's customers. However, for goods which are subject to repeat purchases and significant consumer loyalty, potential entry is more likely to have an impact on current conduct, which has the potential to lose customers in the future. Product life can also be important. Consumers may choose to extend the life of their existing durable goods rather than buy new ones if the price is too high. In such markets, entry need not occur as swiftly to be effective. In markets characterised by bidding for large scale contracts, a potential entrant may be able to exert pressure on incumbent firms' conduct by submitting bids in advance of physical entry. If successful, those contracts could then provide the springboard for entry, e.g. an international firm considering entry into the Australian market or a firm operating in one State considering the extension of its operations inter-state.

5.128 The Commission will have particular regard to evidence of the past success or failure of new entrants in establishing themselves as mainstream competitors in the relevant market. Historical evidence of high prices and profits being maintained for long periods without encouraging new corporations to enter the market, or historical evidence of firms entering, failing and leaving the market, will suggest there are barriers to successful effective entry to the relevant market. Also relevant will be evidence of concrete plans by major corporations, either domestic or overseas, to launch a major entry into the market. However, if the historical record is one of failed entry, the Commission will need to be convinced that these plans are likely to meet with more success than those of past entrants.

Countervailing power

5.129 Merger factor (d) requires the Commission to consider the degree of countervailing power in the market. Countervailing power exists where a supplier (buyer) faces a buyer (supplier) with market power or a credible threat of vertical integration (or other form of bypass) or direct importing. In such cases, the ability of the merged firm to increase (decrease) prices may be constrained and the likelihood of a substantial lessening of competition diminished.

5.130 The Commission does not consider that countervailing power is synonymous with small numbers of buyers (suppliers). As discussed in paragraph 5.87, market concentration is a necessary but not sufficient condition for market power. Furthermore, as discussed in paragraph 5.20, the ability of buyers to depress prices below competitive levels tends to be inhibited by elastic supply conditions in many markets. However, as noted in paragraph 5.168, large infrequent purchases, such as long term contracts with major customers, may tend to undermine attempts at coordinated conduct.

5.131 If pre-merger prices are distorted from competitive levels by market power on the opposite side of the market, a merger may actually move prices closer to competitive levels and increase market efficiency. For example, a merger of buyers in a market may create countervailing power which can push prices down closer to competitive levels. If those firms face broader competition in their downstream market(s), the benefits are likely to be passed through to final consumers. Even if the buyers have downstream market power, moving input costs closer to competitive prices may result in profits being maximised at somewhat lower downstream prices.

5.132 Alternatively, if, for example, market power on the demand side of a market had simply kept pre-merger prices at competitive levels because of supply elasticity, a merger on the supply side of the market may or may not be able to increase prices. If both customers and the merged firm have market power post-merger, prices will be determined under conditions of bilateral monopoly, in which the relative bargaining power of each side will determine the outcome. If there are fewer suppliers than buyers post-merger, no significant restraint from imports and high barriers to entry, it is likely that post-merger prices will be higher than pre-merger prices. If, on the other hand, customers have a credible threat of vertical integration, could facilitate entry by long term vertical contracts or could directly import competitive supplies, post-merger prices may still be maintained at competitive levels.

5.133 If there are customers (suppliers) of the merged firm who possess effective countervailing power, the Commission will consider what proportion of the merged firm's total customer (supplier) base, in both numbers and revenue terms, has such countervailing power; the likely effect of the merger on prices for different groups of customers (suppliers); and whether any likely increase (decrease) in prices is sufficient to constitute a substantial lessening of competition.

Availability of substitutes

5.134 Merger factor (f) requires the Commission to consider the extent to which substitutes are available in the market or are likely to be available in the market. Demand and supply side substitution underpins the identification of the relevant market, which was discussed in paragraphs 5.34–5.86.

5.135 However, when considering the extent to which substitutes are available, it is also relevant to consider their own-price elasticity of supply. This is essentially a function of the relative capacity of market participants post-merger, the shape of firms' cost curves and the costs of capacity expansion.

5.136 For example, many distribution services tend to be characterised by high fixed costs and low variable costs over a large range of output, which can promote intense rivalry even between a small number of players. In other industries, costs rise sharply when full capacity is approached. If the merged firm has the majority of capacity, the ability of remaining firms to inhibit price increases is likely to be limited. However, the costs of capacity expansion also need to be considered, which can sometimes differ markedly from the costs of new entry.

5.137 Mergers often occur in industries with excess capacity. While excess capacity may be promoting competitive pricing pre-merger, the Commission will wish to consider the longer term effects of the merger on prices. This will depend on demand trends and planned post-merger rationalisation. Excess capacity may be a short lived phenomenon, either because demand is increasing or because the merged firm will retire excess capacity. If, on the other hand, the merged firm retains significant excess capacity, this in turn may inhibit competitive pricing by remaining rivals, expansion or new entry. Arguments regarding the efficiency benefits of rationalisation are primarily relevant in the context of applications for authorisation (see Section 6).

Vigorous and effective competitor

5.138 Merger factor (h) requires the Commission to consider the likelihood that the merger would result in the removal from the market of a vigorous and effective competitor. This factor focuses on the actual conduct of the target firm pre-merger and likely future conduct with and without the merger. The more significant the conduct of the target firm for the level of competition in the market, the greater the likely competitive effect of the acquisition.

5.139 If the target firm has been a particularly competitive or innovative influence in the market, the Commission will have particular concerns regarding the likely competitive effect of the merger. In some markets the ‘maverick’ behaviour of particular firms, even small firms, serves to undermine attempts to coordinate the exercise of market power. These firms tend to deliver benefits to consumers beyond their own immediate supply, by forcing other market participants to deliver better and cheaper products. Alternatively a small firm may be an innovative new entrant with a new product or process capable of upsetting established market shares. The Commission would be particularly concerned if such firms were the target of mergers.

5.140 In some instances a merger which breaches the concentration thresholds may create a more vigorous competitor in the market place. For example, a merger between two smaller companies may create a more efficient combined firm which is then able to compete more effectively with larger rivals. The Commission would need to be satisfied that such a merger would either increase, or not substantially lessen, competition in the market and that this effect would be sustained and not just a temporary struggle to establish future market dominance and/or one which is likely to be replaced by oligopolistic coordination, higher prices and potentially the erosion of efficiencies.

5.141 In other circumstances it may be argued that the target firm’s assets would exit the industry absent the acquisition. The former Trade Practices Commission has discussed its approach to ‘failing firms’ in greater detail in a discussion paper issued jointly with the New Zealand Commerce Commission.[70] Briefly, the Commission will need to be convinced that the firm cannot be successfully reorganised and there is no other viable buyer whose acquisition of the firm would not raise competition concerns, and no likelihood of such a buyer emerging, such that the firm's resources are likely to exit the market absent the merger and so cease to represent an actual or potential constraint on the market.

5.142 In most instances the acquisition of a failing firm does not even raise competition issues because there are sufficient competitive constraints on the merged firm remaining in the market. Where competition concerns do arise, Australia does not have a US style 'failing firm defence'. However, failure may be relevant to the evaluation of a merger under both s. 50 and the authorisation provisions.

5.143 It is part of the competitive process that firms will fail, either because of internal problems or due to external changes in market demand and resultant excess capacity. In such circumstances mergers can be an effective means of putting resources to alternative uses and/or improving efficiency through rationalisation. These are issues which can be considered under the authorisation process. The question for s. 50 is how the acquisition of a failing firm will affect competition.

5.144 If the target firm is considered to be failing, the Commission will consider the likely effect of the acquisition on competition compared to the effect of the target's assets exiting the market. Under the latter circumstances the distribution of the target'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.

5.145 If the acquirer is the only other participant in the market, the two scenarios give the same result and the acquisition is unlikely to have any effect on the level of competition. Only where the acquiring firm is able to get some strategic advantage from the acquisition, deterring further entry, might there be a substantial lessening of competition.

5.146 In oligopolistic markets the effect on competition is likely to be less straightforward. With a merger the market share of the acquiring firm will increase by more than if the failing firm exits the market and the failing firm's share is picked up by all the remaining firms. However, whether this amounts to a substantial lessening of competition will require a full assessment of the two scenarios, taking into account all the usual merger factors, including an assessment of possible strategic motives for the acquisition of the failing firm. In its consideration of Bristile's proposed acquisition of Pioneer's concrete roof tile business in Western Australia, which was claimed to be failing, the Commission took the view that the acquisition would give Bristile such strategic advantages as to make effective competition with the two remaining roof tile manufacturers or new entry unlikely.

5.147 Arguments regarding any claimed public benefits that may arise from the acquisition of a failing firm can be considered in the context of an application for authorisation (see Section 6). The claimed benefits may include retention of technical or productive assets, avoidance of social dislocation and unemployment or the achievement of resource savings through rationalisation and economies of scale. (To the extent that these impact on the likely competitive outcomes they may also be relevant to s. 50 considerations.)[71]

Vertical integration

5.148 Merger factor (i) requires the Commission to consider the nature and extent of vertical integration in the market. Vertical relations between firms can range from spot transactions, through long term contracts and licensing arrangements, to common vertical ownership. References to vertical integration in this section cover all forms of vertical relationships.

5.149 The form of vertical relationships can reflect efficiency considerations, such as minimisation of transactions costs or prevention of free riding, but may also have implications for competition. In *Queensland Wire Industries*, Mason CJ and Wilson J said:

> It is true enough that vertical integration sometimes accompanies a substantial degree of market power, but its presence does not necessarily mean that a substantial degree of power exists.[72]

5.150 Vertical relationships may affect the likely competitive impact of a horizontal merger; and vertical mergers may affect the degree of horizontal competition. The Commission will be concerned to examine both of these effects.

5.151 Vertical relationships and vertical mergers will raise concerns only if there is a concentrated industrial structure at one or more of the related or integrated stages of production or distribution. If all stages fall within the ‘safe harbours’ established for horizontal mergers, the Commission is unlikely to take any further interest in the merger. Only if the merged firm breaches the concentration thresholds, and there is an absence of effective import competition and there are high barriers to entry, will any of the detrimental effects to competition discussed below be likely to occur.

5.152 However, when considering the level of concentration it is also necessary to consider whether rivals are vertically independent of the merged firm. For example, in the *Rank* case the Commission considered that the acquisition of Foodland, the only independent grocery wholesaler in Western Australia, by Coles Myer Ltd (CML), a vertically integrated grocery retailer, under a Deed of Cooperation between Rank and CML, would have the effect of substantially lessening competition in retail grocery markets in which CML competed with the subsidiary retailers and customers of Foodland.[73] In other circumstances a horizontal merger may apparently not breach the concentration thresholds, but if the remaining rivals in the market must obtain essential inputs from a market in which the merged party has market power, the merger may still substantially lessen competition.

5.153 In certain circumstances vertical integration by a firm with market power at one stage of production or distribution can enable an extension of market power and reduction of competition to occur in a vertically related market. This may involve foreclosure of supply or customers to rivals in the vertically related market. Alternatively, vertical integration may pre-empt the development of competition at one vertical level where a vertically integrated incumbent can effect discriminatory access to an essential input; or where the vertically integrated owner of the essential input gains access to commercially sensitive information regarding the downstream activities of its rivals.

5.154 Vertical acquisitions may also target potential entrants into upstream or downstream markets, forestalling the development of competition.

5.155 Where vertical integration closes off independent sources of supply or outlets for distribution, barriers to entry and/or expansion may be raised and new entrants may be required to enter at all stages of production and/or distribution. In its consideration of Wattyl's proposed acquisition of Taubmans paints, the Commission considered that exclusive vertical trade dealership and associated retail relationships impeded the entry and expansion of new rivals in the architectural and decorative paints market, by restricting access to retail shelf space.[74]

5.156 Vertical integration may also enable a firm with market power to increase monopoly profits through price discrimination. As Mason CJ and Wilson J observed in *Queensland Wire Industries*:

> ... vertical integration may help a monopolist distinguish between customers whose demand is less and more elastic. Where consumers are able to trade amongst themselves, the monopolist cannot discriminate. By integrating vertically it may be possible for a monopolist to prevent this inter-trading. For example, power companies usually own distribution systems. This enables them to discriminate in pricing between residential and commercial users. Therefore, although vertical integration does not by itself mean that a firm has a substantial degree of market power, it may well be the means by which the firm capitalises on that market power. [75]

5.157 Where all firms are vertically integrated this may facilitate greater coordination of their activities. For example, ownership of retail outlets or retail price maintenance may enable better coordination and enforcement of upstream prices through the greater visibility of downstream prices.

5.158 Where a firm with market power is subject to downstream price regulation, upstream vertical integration may enable the circumvention of price controls through transfer pricing of inputs.

5.159 In summary, when considering the competition effects of vertical relationships and vertical mergers, the Commission will consider the following types of information:

- whether the merged firm has market power in any market which could be leveraged into a vertically related market;
- whether the target firm would have been a likely entrant to a vertically related market;
- whether the merged firm will control access to an essential input;
- whether vertical integration raises barriers to new entry;
- whether vertical integration is likely to facilitate the evasion of access or downstream price regulation;
- whether vertical integration is likely to facilitate price discrimination;
- whether vertical integration is likely to facilitate price coordination; and
- the extent to which horizontal rivals are vertically independent.

5.160 Potential efficiency gains from vertical mergers can be considered in the context of authorisation (see Section 6).

Dynamic characteristics of the market

5.161 Merger factor (g) requires the Commission to consider the dynamic characteristics of the market, including growth, innovation and product differentiation. This factor cuts across most of the other merger factors and has already been discussed to some extent.

5.162 Whether a market is growing or declining can have significant implications for the potential erosion of market power over time. Markets which are growing rapidly are more likely to see new entry and the erosion of market shares over time. Markets which are characterised by rapid product innovation may see market leaders rapidly replaced. However, in some differentiated product markets, first mover advantages and brand loyalty can resist such advances. Historical information on changing market shares will be informative here.

5.163 Regulatory or technological changes may change market boundaries or lower barriers to imports or new entry in the foreseeable future (see paragraphs 3.6 and 3.7). For example, deregulation may remove geographic restrictions on distribution, remove import quotas or reduce tariffs, or increase the number of potential entrants through the removal of restrictive licensing requirements. New technology may increase supply side substitution between products, facilitate global distribution of services, or facilitate new small scale entry into a market.

5.164 A merger may involve the acquisition of technology, intellectual and industrial property and/or research and development facilities, which may in turn affect the competitive dynamics of the relevant market. For example, the acquisition of a fledgling entrant with a new product and/or technology by an incumbent firm may prevent or hinder the injection of new competition into the market. By contrast a merger may combine complementary technologies in such a way as to create a stronger competitor and enhance competition in the market. Whether or not competition is enhanced there may still be efficiency gains which could be considered in the context of an application for authorisation (see Section 6).

5.165 Sometimes when there is one merger or joint venture in a market, the consequent realignment of competitive positions may result in further mergers and/or joint ventures. In these circumstances the Commission will consider the flow on effects of the original merger when evaluating its competitive impact on the market.

Other factors

5.166 The list of merger factors in s. 50(3) is not exclusive and particular mergers may involve other factors which impinge on the likely competitive outcome of the merger. It is not possible in this guideline to foresee every possible factor which may be of relevance in particular market circumstances.

Coordinated conduct

5.167 One factor which is of general relevance is the extent to which the market is characterised by conditions conducive to coordinated conduct. While the exercise of unilateral market power does not require accommodating action by remaining firms in a market, the exercise of coordinated market power does. This does not necessarily involve collusion of the kind covered by s. 45 but may simply involve signalling or conscious parallelism. Features of the market which impinge on the likely rewards from coordination, the likelihood of reaching an agreement, and the ability of the parties to detect and punish deviations from the agreement, are all relevant to the likelihood of such conduct occurring and being successful in the future.

5.168 Some of the factors affecting the likelihood of coordinated conduct are:

- a small number of firms increases the likelihood that firms will recognise mutual benefits from cooperation, and makes it easier to reach an agreement and detect cheating;

- the absence of potential entrants or fringe competitors makes it less likely that coordinated conduct will be undermined;
- inelastic demand increases firms' returns from coordination versus competition;
- product homogeneity makes it easier to reach an agreement and easier to detect deviations;
- firm homogeneity, similarity of cost and other conditions, e.g. vertical integration, product lines or production capacity, affecting the interests of rivals makes it easier to reach an agreement;
- posted prices or open bids, i.e. transparency of prices, make monitoring an agreement easier;
- vertical relationships may enable price signalling or price monitoring downstream;
- size and frequency of purchases affects firms' incentives to cooperate or compete; and
- industry associations and fora may facilitate the flow of information on prices and outputs between market participants and/or may facilitate them reaching an agreement.

5.169 If a merger increases the likelihood of coordination it is likely to substantially lessen competition. Both horizontal and vertical mergers may have this effect. For example, mergers can increase the level of concentration in a market, they may remove a maverick competitor which has destabilised past attempts at market coordination, they may create rivals with a greater commonality of interest, or they may increase the visibility of pricing through downstream integration. In other circumstances a merger which disrupts market conditions, e.g. by reducing the costs of the merged firm or eliminating a technology disadvantage, may disturb the terms of coordination and may make such coordination less likely.

5.170 When considering the likelihood of future coordination the Commission will also consider any existing relationships between firms and the past history of market conduct, whether it has been characterised by price fixing, parallel pricing or vigorous price competition and how such conduct is likely to be affected by the merger.

Efficiencies

5.171 As discussed in paragraphs 5.16-5.17, although s. 50 is concerned with the level of competition in markets and not the competitiveness of individual firms, and while efficiencies are more generally relevant in the context of authorisation, the extent to which any efficiency enhancing aspects of a merger may impact on the competitiveness of markets is relevant in the context of s. 50.

5.172 Where a merger enhances the efficiency of the merged firm, for example by achieving economies of scale or effectively combining research and development facilities, it may have the effect of creating a new or enhanced competitive constraint on the unilateral conduct of other firms in the market, or it may undermine the conditions for coordinated conduct. Pecuniary benefits, such as lower input prices due to enhanced bargaining power, may also be relevant in a s. 50 context.

5.173 If efficiencies are likely to result in lower (or not significantly higher) prices, increased output and/or higher quality goods or services, the merger may not substantially lessen competition.

5.174 While recognising that precise quantification of such efficiencies is not generally possible, the Commission will require strong and credible evidence that such efficiencies are likely to accrue and that the claimed benefits for competition are likely to follow.

Prices and profit margins

5.175 Merger factor (e) requires the Commission to consider the likelihood that the acquisition would result in the acquirer being able to significantly and sustainably increase prices or profit margins. This factor brings together all the other factors discussed above to determine whether the merger will have the effect, or be likely to have the effect, of substantially lessening competition in a market. If the merger facilitates sustained increases in prices or profit margins above competitive levels, this will be indicative of an increase in market power and a reduction in competition. However, it is not necessary for the merged firm to take advantage of its pricing discretion for competition to be damaged; it may simply opt for a quiet life or may use its pricing discretion to protect inefficient operations rather than to accrue excess profits.

5.176 Sustained price increases above competitive levels are the most obvious and visible manifestation of market power and a substantial lessening of competition. In some instances a merger may not increase prices but rather prevent prices falling to competitive levels by, for example, forestalling entry. Market power can also be exercised in other ways, e.g. conditions of access to an essential facility or reductions in product quality. Alternatively the merger may result in cost reductions which accrue as increased profits rather than being passed through to consumers in lower prices. The merged firm sends out no price signals to rivals or potential rivals, which might otherwise increase production in response to price increases by the merged firm; while the merged firm increases its resources to discipline maverick pricing or attempts at market entry.

5.177 Where an acquisition involves a joint venture buyout it will be necessary to consider the price and other incentives operating on the joint venture before and after the buyout. For example, if the joint venture was previously operating on a profit maximising basis there may be no effect on prices from the buyout. However, if it was previously operating on a cost sharing basis, the buyout may significantly change incentives. A joint venture buyout by a vertically related firm may also create the potential to leverage market power from one stage to another (see paragraphs 5.153-5.156).

5.178 Where the merged firm's prices are regulated, the Commission will give particular attention to non-price aspects of competition. For example, if a vertically integrated firm owns an essential facility for its downstream rivals, but conditions of access are regulated, the Commission will consider whether the access regime is fully capable of insulating downstream rivals from the effects of upstream market power. Where final outputs are price regulated the Commission will consider the potential for reductions in non-price competition, such as quality and product innovation. Furthermore, access regimes and price regulation may not be a permanent feature of the market and it will be appropriate to consider the likelihood of future changes to the regulatory environment and the impact of the proposed merger in the absence of such regulation.

5.179 There may be circumstances where pre-merger profits are depressed below sustainable levels, for example due to excess capacity, and the merger provides a vehicle for rationalisation, resulting in price and/or profit increases. Provided there are sufficient constraints remaining in the market to prevent price increases above competitive levels, the Commission would be unlikely to object to such a merger. However, any such claims will be subject to careful scrutiny.

Annex C

Extract of the Merger Guidelines in US

(English Only)

Horizontal Merger Guidelines

U.S. Department of Justice and the Federal Trade Commission

Issued: April 2, 1992
Revised: April 8, 1997

Note: Section 4 of these Guidelines, relating to Efficiencies, appears as it was issued in revised form by the Department of Justice and the Federal Trade Commission on April 8, 1997; and the footnotes in Section 5 of the Guidelines have been renumbered accordingly. The remaining portions of the Guidelines were unchanged in 1997, and appear as they were issued on April 2, 1992.

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0. Purpose, Underlying Policy Assumptions and Overview

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These Guidelines outline the present enforcement policy of the Department of Justice and the Federal Trade Commission (the "Agency") concerning horizontal acquisitions and mergers ("mergers") subject to section 7 of the Clayton Act,(1) to section 1 of the Sherman Act,(2) or to section 5 of the FTC Act.(3) They describe the analytical framework and specific standards normally used by the Agency in analyzing mergers.(4) By stating its policy as simply and clearly as possible, the Agency hopes to reduce the uncertainty associated with enforcement of the antitrust laws in this area.

Although the Guidelines should improve the predictability of the Agency's merger enforcement policy, it is not possible to remove the exercise of judgment from the evaluation of mergers under the antitrust laws. Because the specific standards set forth in the Guidelines must be applied to a broad range of possible factual circumstances, mechanical application of those standards may provide misleading answers to the economic questions raised under the antitrust laws. Moreover, information is often incomplete and the picture of competitive conditions that develops from historical evidence may provide an incomplete answer to the forward-looking inquiry of the Guidelines. Therefore, the Agency will apply the standards of the Guidelines reasonably and flexibly to the particular facts and circumstances of each proposed merger.

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1 15 U.S.C. 18 (1988). Mergers subject to section 7 are prohibited if their effect "may be substantially to lessen competition, or to tend to create a monopoly."

2 15 U.S.C. 1 (1988). Mergers subject to section 1 are prohibited if they constitute a "contract, combination . . ., or conspiracy in restraint of trade."

3 15 U.S.C. 45 (1988). Mergers subject to section 5 are prohibited if they constitute an "unfair method of competition."

4 These Guidelines update the Merger Guidelines issued by the U.S. Department of Justice in 1984 and the Statement of Federal Trade Commission Concerning Horizontal Mergers issued in 1982. The Merger Guidelines may be revised from time to time as necessary to reflect any significant changes in enforcement policy or to clarify aspects of existing policy.

0.1 Purpose and Underlying Policy Assumptions of the Guidelines

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The Guidelines are designed primarily to articulate the analytical framework the Agency applies in determining whether a merger is likely substantially to lessen competition, not to describe how the Agency will conduct the litigation of cases that it decides to bring. Although relevant in the latter context, the factors contemplated in the Guidelines neither dictate nor exhaust the range of evidence that the Agency must or may introduce in litigation. Consistent with their objective, the Guidelines do not attempt to assign the burden of proof, or the burden of coming forward with evidence, on any particular issue. Nor do the Guidelines attempt to adjust or reapportion burdens of proof or burdens of coming forward as those standards have been established by the courts.(5) Instead, the Guidelines set forth a methodology for analyzing issues once the necessary facts are available. The necessary facts may be derived from the documents and statements of both the merging firms and other sources.

Throughout the Guidelines, the analysis is focused on whether consumers or producers "likely would" take certain actions, that is, whether the action is in the actor's economic interest. References to the profitability of certain actions focus on economic profits rather than accounting profits. Economic profits may be defined as the excess of revenues over costs where costs include the opportunity cost of invested capital.

Mergers are motivated by the prospect of financial gains. The possible sources of the financial gains from mergers are many, and the Guidelines do not attempt to identify all possible sources of gain in every merger. Instead, the Guidelines focus on the one potential source of gain that is of concern under the antitrust laws: market power.

The unifying theme of the Guidelines is that mergers should not be permitted to create or enhance market power or to facilitate its exercise. Market power to a seller is the ability profitably to maintain prices above competitive levels for a significant period of time.(6) In some circumstances, a sole seller (a "monopolist") of a product with no good substitutes can maintain a selling price that is above the level that would prevail if the market were competitive. Similarly, in some circumstances, where only a few firms account for most of the sales of a product, those firms can exercise market power, perhaps even approximating the performance of a monopolist, by either explicitly or implicitly coordinating their actions. Circumstances also may permit a single firm, not a monopolist, to exercise market power through unilateral or non-coordinated conduct -- conduct the success of which does not rely on the concurrence of other firms in the market or on coordinated responses by those firms. In any case, the result of the exercise of market power is a transfer of wealth from buyers to sellers or a misallocation of resources.

Market power also encompasses the ability of a single buyer (a "monopsonist"), a coordinating group of buyers, or a single buyer, not a monopsonist, to depress the price paid for a product to a level that is below the competitive price and thereby depress output. The exercise of market power by buyers ("monopsony power") has adverse effects comparable to those associated with the exercise of market power by sellers. In order to assess potential monopsony concerns, the Agency will apply an analytical framework analogous to the framework of these Guidelines.

While challenging competitively harmful mergers, the Agency seeks to avoid unnecessary interference with the larger universe of mergers that are either competitively beneficial or neutral. In implementing this objective, however, the Guidelines reflect the congressional intent that merger enforcement should interdict competitive problems in their incipiency.

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5 For example, the burden with respect to efficiency and failure continues to reside with the proponents of the merger.

6 Sellers with market power also may lessen competition on dimensions other than price, such as product quality, service, or innovation.

0.2 Overview

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The Guidelines describe the analytical process that the Agency will employ in determining whether to challenge a horizontal merger. First, the Agency assesses whether the merger would significantly increase concentration and result in a concentrated market, properly defined and measured. Second, the Agency assesses whether the merger, in light of market concentration and other factors that characterize the market, raises concern about potential adverse competitive effects. Third, the Agency assesses whether entry would be timely, likely and sufficient either to deter or to counteract the competitive effects of concern. Fourth, the Agency assesses any efficiency gains that reasonably cannot be achieved by the parties through other means. Finally the Agency assesses whether, but for the merger, either party to the transaction would be likely to fail, causing its assets to exit the market. The process of assessing market concentration, potential adverse competitive effects, entry, efficiency and failure is a tool that allows the Agency to answer the ultimate inquiry in merger analysis: whether the merger is likely to create or enhance market power or to facilitate its exercise.

1. Market Definition, Measurement and Concentration
1.0 Overview

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A merger is unlikely to create or enhance market power or to facilitate its exercise unless it significantly increases concentration and results in a concentrated market, properly defined and measured. Mergers that either do not significantly increase concentration or do not result in a concentrated market ordinarily require no further analysis.

The analytic process described in this section ensures that the Agency evaluates the likely competitive impact of a merger within the context of economically meaningful markets -- i.e., markets that could be subject to the exercise of market power. Accordingly, for each product or service (hereafter "product") of each merging firm, the Agency seeks to define a market in which firms could effectively exercise market power if they were able to coordinate their actions.

Market definition focuses solely on demand substitution factors -- i.e., possible consumer responses. Supply substitution factors -- i.e., possible production responses -- are considered elsewhere in the Guidelines in the identification of firms that participate in the relevant market and the analysis of entry. See Sections 1.3 and 3. A market is defined as a product or group of products and a geographic area in which it is produced or sold such that a hypothetical profit-maximizing firm, not subject to price regulation, that was the only present and future producer or seller of those products in that area likely would impose at least a "small but significant and nontransitory" increase in price, assuming the terms of sale of all other products are held constant. A relevant market is a group of products and a geographic area that is no bigger than necessary to satisfy this test. The "small but significant and nontransitory" increase in price is employed solely as a methodological tool for the analysis of mergers: it is not a tolerance level for price increases.

Absent price discrimination, a relevant market is described by a product or group of products and a geographic area. In determining whether a hypothetical monopolist would be in a position to exercise market power, it is necessary to evaluate the likely demand responses of consumers to a price increase. A price increase could be made unprofitable by consumers either switching to other products or switching to the same product produced by firms at other locations. The nature and magnitude of these two types of demand responses respectively determine the scope of the product market and the geographic market.

In contrast, where a hypothetical monopolist likely would discriminate in prices charged to different groups of buyers, distinguished, for example, by their uses or locations, the Agency may delineate different relevant markets corresponding to each such buyer group. Competition for sales to each such group may be affected differently by a particular merger and markets are delineated by evaluating the demand response of each such buyer group. A relevant market of this kind is described by a collection of products for sale to a given group of buyers.

Once defined, a relevant market must be measured in terms of its participants and concentration. Participants include firms currently producing or selling the market's products in the market's geographic area. In addition, participants may include other firms depending on their likely supply responses to a "small but significant and nontransitory" price increase. A firm is viewed as a participant if, in response to a "small but significant and nontransitory" price increase, it likely would enter rapidly into production or sale of a market product in the market's area, without incurring significant sunk costs of entry and exit. Firms likely to make any of these supply responses are considered to be "uncommitted" entrants because their supply response would create new production or sale in the relevant market and because that production or sale could be quickly terminated without significant loss.(7) Uncommitted entrants are capable of making such quick and uncommitted supply responses that they likely influenced the market premerger, would influence it post-merger, and accordingly are considered as market participants at both times. This analysis of market definition and market measurement applies equally to foreign and domestic firms.

If the process of market definition and market measurement identifies one or more relevant markets in which the merging firms are both participants, then the merger is considered to be horizontal. Sections 1.1 through 1.5 describe in greater detail how product and geographic markets will be defined, how market shares will be calculated and how market concentration will be assessed.

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7 Probable supply responses that require the entrant to incur significant sunk costs of entry and exit are not part of market measurement, but are included in the analysis of the significance of entry. See Section 3. Entrants that must commit substantial sunk costs are regarded as "committed" entrants because those sunk costs make entry irreversible in the short term without foregoing that investment; thus the likelihood of their entry must be evaluated with regard to their long-term profitability.

1.1 Product Market Definition

The Agency will first define the relevant product market with respect to each of the products of each of the merging firms. (8)

1.11 General Standards

Absent price discrimination, the Agency will delineate the product market to be a product or group of products such that a hypothetical profit-maximizing firm that was the only present and future seller of those products ("monopolist") likely would impose at least a "small but significant and nontransitory" increase in price. That is, assuming that buyers likely would respond to an increase in price for a tentatively identified product group only by shifting to other products, what would happen? If the alternatives were, in the aggregate, sufficiently attractive at their existing terms of sale, an attempt to raise prices would result in a reduction of sales large enough that the price increase would not prove profitable, and the tentatively identified product group would prove to be too narrow.

Specifically, the Agency will begin with each product (narrowly defined) produced or sold by each merging firm and ask what would happen if a hypothetical monopolist of that product imposed at least a "small but significant and nontransitory" increase in price, but the terms of sale of all other products remained constant. If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then the Agency will add to the product group the product that is the next-best substitute for the merging firm's product.(9)

In considering the likely reaction of buyers to a price increase, the Agency will take into account all relevant evidence, including, but not limited to, the following:

(1) evidence that buyers have shifted or have considered shifting purchases between products in response to relative changes in price or other competitive variables;
(2) evidence that sellers base business decisions on the prospect of buyer substitution between products in response to relative changes in price or other competitive variables;
(3) the influence of downstream competition faced by buyers in their output markets; and
(4) the timing and costs of switching products.

The price increase question is then asked for a hypothetical monopolist controlling the expanded product group. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the prices of any or all of the additional products under its control. This process will continue until a group of products is identified such that a hypothetical monopolist over that group of products would profitably impose at least a "small but significant and nontransitory" increase, including the price of a product of one of the merging firms. The Agency generally will consider the relevant product market to be the smallest group of products that satisfies this test.

In the above analysis, the Agency will use prevailing prices of the products of the merging firms and possible substitutes for such products, unless premerger circumstances are strongly suggestive of coordinated interaction, in which case the Agency will use a price more reflective of the competitive price.(10) However, the Agency may use likely future prices, absent the merger, when changes in the prevailing prices can be predicted with reasonable reliability. Changes in price may be predicted on the basis of, for example, changes in regulation which affect price either directly or indirectly by affecting costs or demand.

In general, the price for which an increase will be postulated will be whatever is considered to be the price of the product at the stage of the industry being examined.(In attempting to determine objectively the effect of a "small but significant and nontransitory" increase in price, the Agency, in most contexts, will use a price increase of five percent lasting for the foreseeable future. However, what constitutes a "small but significant and nontransitory" increase in price will depend on the nature of the industry, and the Agency at times may use a price increase that is larger or smaller than five percent.

1.12 Product Market Definition in the Presence of Price Discrimination

The analysis of product market definition to this point has assumed that price discrimination -- charging different buyers different prices for the same product, for example -- would not be profitable for a hypothetical monopolist. A different analysis applies where price discrimination would be profitable for a hypothetical monopolist.

Existing buyers sometimes will differ significantly in their likelihood of switching to other products in response to a "small but significant and nontransitory" price increase. If a hypothetical monopolist can identify and price differently to those buyers ("targeted buyers") who would not defeat the targeted price increase by substituting to other products in response to a "small but significant and nontransitory" price increase for the relevant product, and if other buyers likely would not purchase the relevant product and resell to targeted buyers, then a hypothetical monopolist would profitably impose a discriminatory price increase on sales to targeted buyers. This is true regardless of whether a general increase in price would cause such significant substitution that the price increase would not be profitable. The Agency will consider additional relevant product markets consisting of a particular use or uses by groups of buyers of the product for which a hypothetical monopolist would profitably and separately impose at least a "small but significant and nontransitory" increase in price.

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8 Although discussed separately, product market definition and geographic market definition are interrelated. In particular, the extent to which buyers of a particular product would shift to other products in the event of a "small but significant and nontransitory" increase in price must be evaluated in the context of the relevant geographic market.

9 Throughout the Guidelines, the term "next best substitute" refers to the alternative which, if available in unlimited quantities at constant prices, would account for the greatest value of diversion of demand in response to a "small but significant and nontransitory" price increase.

10 The terms of sale of all other products are held constant in order to focus market

definition on the behavior of consumers. Movements in the terms of sale for other products, as may result from the behavior of producers of those products, are accounted for in the analysis of competitive effects and entry. See Sections 2 and 3.

11 For example, in a merger between retailers, the relevant price would be the retail price of a product to consumers. In the case of a merger among oil pipelines, the relevant price would be the tariff -- the price of the transportation service.

1.2 Geographic Market Definition

For each product market in which both merging firms participate, the Agency will determine the geographic market or markets in which the firms produce or sell. A single firm may operate in a number of different geographic markets.

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1.21 General Standards

Absent price discrimination, the Agency will delineate the geographic market to be a region such that a hypothetical monopolist that was the only present or future producer of the relevant product at locations in that region would profitably impose at least a "small but significant and nontransitory" increase in price, holding constant the terms of sale for all products produced elsewhere. That is, assuming that buyers likely would respond to a price increase on products produced within the tentatively identified region only by shifting to products produced at locations of production outside the region, what would happen? If those locations of production outside the region were, in the aggregate, sufficiently attractive at their existing terms of sale, an attempt to raise price would result in a reduction in sales large enough that the price increase would not prove profitable, and the tentatively identified geographic area would prove to be too narrow.

In defining the geographic market or markets affected by a merger, the Agency will begin with the location of each merging firm (or each plant of a multiplant firm) and ask what would happen if a hypothetical monopolist of the relevant product at that point imposed at least a "small but significant and nontransitory" increase in price, but the terms of sale at all other locations remained constant. If, in response to the price increase, the reduction in sales of the product at that location would be large enough that a hypothetical monopolist producing or selling the relevant product at the merging firm's location would not find it profitable to impose such an increase in price, then the Agency will add the location from which production is the next-best substitute for production at the merging firm's location.

In considering the likely reaction of buyers to a price increase, the Agency will take into account all relevant evidence, including, but not limited to, the following:

(1) evidence that buyers have shifted or have considered shifting purchases between different geographic locations in response to relative changes in price or other competitive variables;

(2) evidence that sellers base business decisions on the prospect of buyer substitution between geographic locations in response to relative changes in price or other competitive variables;

(3) the influence of downstream competition faced by buyers in their output markets; and

(4) the timing and costs of switching suppliers.

The price increase question is then asked for a hypothetical monopolist controlling the expanded group of locations. In performing successive iterations of the price increase test, the hypothetical monopolist will be assumed to pursue maximum profits in deciding whether to raise the price at any or all of the additional locations under its control. This process will continue until a group of locations is identified such that a hypothetical monopolist over that group of locations would profitably impose at least a "small but significant and nontransitory" increase, including the price charged at a location of one of the merging firms.

The "smallest market" principle will be applied as it is in product market definition. The price for which an increase will be postulated, what constitutes a "small but significant and nontransitory" increase in price, and the substitution decisions of consumers all will be determined in the same way in which they are determined in product market definition.

1.22 Geographic Market Definition in the Presence of Price Discrimination

The analysis of geographic market definition to this point has assumed that geographic price discrimination -- charging different prices net of transportation costs for the same product to buyers in different areas, for example -- would not be profitable for a hypothetical monopolist. However, if a hypothetical monopolist can identify and price differently to buyers in certain areas ("targeted buyers") who would not defeat the targeted price increase by substituting to more distant sellers in response to a "small but significant and nontransitory" price increase for the relevant product, and if other buyers likely would not purchase the relevant product and resell to targeted buyers,(12) then a hypothetical monopolist would profitably impose a discriminatory price increase. This is true even where a general price increase would cause such significant substitution that the price increase would not be profitable. The Agency will consider additional geographic markets consisting of particular locations of buyers for which a hypothetical monopolist would profitably and separately impose at least a "small but significant and nontransitory" increase in price.

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12 This arbitrage is inherently impossible for many services and is particularly difficult where the product is sold on a delivered basis and where transportation costs are a significant percentage of the final cost.

1.3 Identification of Firms That Participate in the Relevant Market

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1.31 Current Producers or Sellers

The Agency's identification of firms that participate in the relevant market begins with all firms that currently produce or sell in the relevant market. This includes vertically integrated firms to the extent that such inclusion accurately reflects their competitive significance in the relevant market prior to the merger. To the extent that the analysis under Section 1.1 indicates that used, reconditioned or recycled goods are included in the relevant market, market participants will include firms that produce or sell such goods and that likely would offer those goods in competition with other relevant products.

1.32 Firms That Participate Through Supply Response

In addition, the Agency will identify other firms not currently producing or selling the relevant product in the relevant area as participating in the relevant market if their inclusion would more accurately reflect probable supply responses. These firms are termed "uncommitted entrants." These supply responses must be likely to occur within one year and without the expenditure of significant sunk costs of entry and exit, in response to a "small but significant and nontransitory" price increase. If a firm has the technological capability to achieve such an uncommitted supply response, but likely would not (e.g., because difficulties in achieving product acceptance, distribution, or production would render such a response unprofitable), that firm will not be considered to be a market participant. The competitive significance of supply responses that require more time or that require firms to incur significant sunk costs of entry and exit will be considered in entry analysis. See Section 3.(13)

Sunk costs are the acquisition costs of tangible and intangible assets that cannot be recovered through the redeployment of these assets outside the relevant market, i.e., costs uniquely incurred to supply the relevant product and geographic market. Examples of sunk costs may include market-specific investments in production facilities, technologies, marketing (including product acceptance), research and development, regulatory approvals, and testing. A significant sunk cost is one which would not be recouped within one year of the commencement of the supply response, assuming a "small but significant and nontransitory" price increase in the relevant market. In this context, a "small but significant and nontransitory" price increase will be determined in the same way in which it is determined in product market definition, except the price increase will be assumed to last one year. In some instances, it may be difficult to calculate sunk costs with precision. Accordingly, when necessary, the Agency will make an overall assessment of the extent of sunk costs for firms likely to participate through supply responses.

These supply responses may give rise to new production of products in the relevant product market or new sources of supply in the relevant geographic market. Alternatively, where price discrimination is likely so that the relevant market is defined in terms of a targeted group of buyers, these supply responses serve to identify new sellers to the targeted buyers. Uncommitted supply responses may occur in several different ways: by the switching or extension of existing assets to production or sale in the relevant market; or by the construction or acquisition of assets that enable production or sale in the relevant market.

1.321 Production Substitution and Extension: The Switching or Extension of Existing Assets to Production or Sale in the Relevant Market

The productive and distributive assets of a firm sometimes can be used to produce and sell either the relevant products or products that buyers do not regard as good substitutes. Production substitution refers to the shift by a firm in the use of assets from producing and selling one product to producing and selling another. Production extension refers to the use of those assets, for example, existing brand names and reputation, both for their current production and for production of the relevant product. Depending upon the speed of that shift and the extent of sunk costs incurred in the shift or extension, the potential for production substitution or extension may necessitate treating as market participants firms that do not currently produce the relevant product.(14)

If a firm has existing assets that likely would be shifted or extended into production and sale of the relevant product within one year, and without incurring significant sunk costs of entry and exit, in response to a "small but significant and nontransitory" increase in price for only the relevant product, the Agency will treat that firm as a market participant. In assessing whether a firm is such a market participant, the Agency will take into account the costs of substitution or extension relative to the profitability of sales at the elevated price, and whether the firm's capacity is elsewhere committed or elsewhere so profitably employed that such capacity likely would not be available to respond to an increase in price in the market.

1.322 Obtaining New Assets for Production or Sale of the Relevant Product

A firm may also be able to enter into production or sale in the relevant market within one year and without the expenditure of significant sunk costs of entry and exit, in response to a "small but significant and nontransitory" increase in price for only the relevant product, even if the firm is newly organized or is an existing firm without products or productive assets closely related to the relevant market. If new firms, or existing firms without closely related products or productive assets, likely would enter into production or sale in the relevant market within one year without the expenditure of significant sunk costs of entry and exit, the Agency will treat those firms as market participants.

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13 If uncommitted entrants likely would also remain in the market and would meet the entry tests of timeliness, likelihood and sufficiency, and thus would likely deter anticompetitive mergers or deter or counteract the competitive effects of concern (see Section 3, infra), the Agency will consider the impact of those firms in the entry analysis.

14 Under other analytical approaches, production substitution sometimes has been reflected in the description of the product market. For example, the product market for stamped metal products such as automobile hub caps might be described as "light metal stamping," a production process rather than a product. The Agency believes that the approach described in the text provides a more clearly focused method of incorporating this factor in merger analysis. If production substitution among a group of products is

nearly universal among the firms selling one or more of those products, however, the Agency may use an aggregate description of those markets as a matter of convenience.

1.4 Calculating Market Shares

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1.41 General Approach

The Agency normally will calculate market shares for all firms (or plants) identified as market participants in Section 1.3 based on the total sales or capacity currently devoted to the relevant market together with that which likely would be devoted to the relevant market in response to a "small but significant and nontransitory" price increase. Market shares can be expressed either in dollar terms through measurement of sales, shipments, or production, or in physical terms through measurement of sales, shipments, production, capacity, or reserves.

Market shares will be calculated using the best indicator of firms' future competitive significance. Dollar sales or shipments generally will be used if firms are distinguished primarily by differentiation of their products. Unit sales generally will be used if firms are distinguished primarily on the basis of their relative advantages in serving different buyers or groups of buyers. Physical capacity or reserves generally will be used if it is these measures that most effectively distinguish firms. Typically, annual data are used, but where individual sales are large and infrequent so that annual data may be unrepresentative, the Agency may measure market shares over a longer period of time.

In measuring a firm's market share, the Agency will not include its sales or capacity to the extent that the firm's capacity is committed or so profitably employed outside the relevant market that it would not be available to respond to an increase in price in the market.

1.42 Price Discrimination Markets

When markets are defined on the basis of price discrimination (Sections 1.12 and 1.22), the Agency will include only sales likely to be made into, or capacity likely to be used to supply, the relevant market in response to a "small but significant and nontransitory" price increase.

1.43 Special Factors Affecting Foreign Firms

Market shares will be assigned to foreign competitors in the same way in which they are assigned to domestic competitors. However, if exchange rates fluctuate significantly, so that comparable dollar calculations on an annual basis may be unrepresentative, the Agency may measure market shares over a period longer than one year.

If shipments from a particular country to the United States are subject to a quota, the market shares assigned to firms in that country will not exceed the amount of shipments by such firms allowed under the quota.(16) In the case of restraints that limit imports to some percentage of the total amount of the product sold in the United States (i.e., percentage quotas), a domestic price increase that reduced domestic consumption also would reduce the volume of imports into the United States.

Accordingly, actual import sales and capacity data will be reduced for purposes of calculating market shares. Finally, a single market share may be assigned to a country or group of countries if firms in that country or group of countries act in coordination.

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15 Where all firms have, on a forward-looking basis, an equal likelihood of securing sales, the Agency will assign firms equal shares.

16 The constraining effect of the quota on the importer's ability to expand sales is relevant to the evaluation of potential adverse competitive effects. See Section 2.

1.5 Concentration and Market Shares

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Market concentration is a function of the number of firms in a market and their respective market shares. As an aid to the interpretation of market data, the Agency will use the Herfindahl-Hirschman Index ("HHI") of market concentration. The HHI is calculated by summing the squares of the individual market shares of all the participants.(17) Unlike the four-firm concentration ratio, the HHI reflects both the distribution of the market shares of the top four firms and the composition of the market outside the top four firms. It also gives proportionately greater weight to the market shares of the larger firms, in accord with their relative importance in competitive interactions.

The Agency divides the spectrum of market concentration as measured by the HHI into three regions that can be broadly characterized as unconcentrated (HHI below 1000), moderately concentrated (HHI between 1000 and 1800), and highly concentrated (HHI above 1800). Although the resulting regions provide a useful framework for merger analysis, the numerical divisions suggest greater precision than is possible with the available economic tools and information. Other things being equal, cases falling just above and just below a threshold present comparable competitive issues.

1.51 General Standards

In evaluating horizontal mergers, the Agency will consider both the post-merger market concentration and the increase in concentration resulting from the merger.(18) Market concentration is a useful indicator of the likely potential competitive effect of a merger. The general standards for horizontal mergers are as follows:

a) Post-Merger HHI Below 1000. The Agency regards markets in this region to be unconcentrated. Mergers resulting in unconcentrated markets are unlikely to have adverse competitive effects and ordinarily require no further analysis.

b) Post-Merger HHI Between 1000 and 1800. The Agency regards markets in this region to be moderately concentrated. Mergers producing an increase in the HHI of less than 100 points in moderately concentrated markets post-merger are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 100 points in moderately concentrated markets post-merger potentially raise significant competitive concerns depending on the factors set forth in Sections 2-5 of the Guidelines.

c) Post-Merger HHI Above 1800. The Agency regards markets in this region to be highly concentrated. Mergers producing an increase in the HHI of less than 50 points, even in highly concentrated markets post-merger, are unlikely to have adverse competitive consequences and ordinarily require no further analysis. Mergers producing an increase in the HHI of more than 50 points in highly concentrated markets post-merger potentially raise significant competitive concerns, depending on the factors set forth in Sections 2-5 of the Guidelines. Where the post-merger HHI exceeds 1800, it will be presumed that mergers producing an increase in the HHI of more than 100 points are likely to create or enhance market power or facilitate its exercise. The presumption may be overcome by a showing that factors set forth in Sections 2-5 of the Guidelines make itunlikely that the merger will create or enhance market power or facilitate its exercise, in light of market concentration and market shares.

1.52 Factors Affecting the Significance of Market Shares and Concentration

The post-merger level of market concentration and the change in concentration resulting from a merger affect the degree to which a merger raises competitive concerns. However, in some situations, market share and market concentration data may either understate or overstate the likely future competitive significance of a firm or firms in the market or the impact of a merger. The following are examples of such situations.

1.521 Changing Market Conditions

Market concentration and market share data of necessity are based on historical evidence. However, recent or ongoing changes in the market may indicate that the current market share of a particular firm either understates or overstates the firm's future competitive significance. For example, if a new technology that is important to long-term competitive viability is available to other firms in the market, but is not available to a particular firm, the Agency may conclude that the historical market share of that firm overstates its future competitive significance. The Agency will consider reasonably predictable effects of recent or ongoing changes in market conditions in interpreting market concentration and market share data.

1.522 Degree of Difference Between the Products and Locations in the Market and Substitutes Outside the Market

All else equal, the magnitude of potential competitive harm from a merger is greater if a hypothetical monopolist would raise price within the relevant market by substantially more than a "small but significant and nontransitory" amount. This may occur when the demand substitutes outside the relevant market, as a group, are not close substitutes for the products and locations within the relevant market. There thus may be a wide gap in the chain of demand substitutes at the edge of the product and geographic market. Under such circumstances, more market power is at stake in the relevant market than in a market in which a hypothetical monopolist would raise price by exactly five percent.

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17 For example, a market consisting of four firms with market shares of 30 percent, 30 percent, 20 percent and 20 percent has an HHI of 2600 ($30^2 + 30^2 + 20^2 + 20^2 = 2600$). The HHI ranges from 10,000 (in the case of a pure monopoly) to a number approaching zero (in the case of an atomistic market). Although it is desirable to include all firms in the calculation, lack of information about small firms is not critical because such firms do not affect the HHI significantly.

18 The increase in concentration as measured by the HHI can be calculated independently of the overall market concentration by doubling the product of the market shares of the merging firms. For example, the merger of firms with shares of 5 percent and 10 percent of the market would increase the HHI by 100 ($5 \times 10 \times 2 = 100$). The explanation for this technique is as follows: In calculating the HHI before the merger, the market shares of the merging firms are squared individually: $(a)^2 + (b)^2$. After the merger, the sum of those shares would be squared: $(a + b)^2$, which equals $a^2 + 2ab + b^2$. The increase in the HHI therefore is represented by 2ab.

2. The Potential Adverse Competitive Effects of Mergers

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2.0 Overview

Other things being equal, market concentration affects the likelihood that one firm, or a small group of firms, could successfully exercise market power. The smaller the percentage of total supply that a firm controls, the more severely it must restrict its own output in order to produce a given price increase, and the less likely it is that an output restriction will be profitable. If collective action is necessary for the exercise of market power, as the number of firms necessary to control a given percentage of total supply decreases, the difficulties and costs of reaching and enforcing an understanding with respect to the control of that supply might be reduced. However, market share and concentration data provide only the starting point for analyzing the competitive impact of a merger. Before determining whether to challenge a merger, the Agency also will assess the other market factors that pertain to competitive effects, as well as entry, efficiencies and failure.

This section considers some of the potential adverse competitive effects of mergers and the factors in addition to market concentration relevant to each. Because an individual merger may threaten to harm competition through more than one of these effects, mergers will be analyzed in terms of as many potential adverse competitive effects as are appropriate. Entry, efficiencies, and failure are treated in Sections 3-5.

2.1 Lessening of Competition Through Coordinated Interaction

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A merger may diminish competition by enabling the firms selling in the relevant market more likely, more successfully, or more completely to engage in coordinated interaction that harms consumers. Coordinated interaction is comprised of actions by a group of firms that are profitable for each of them only as a result of the accommodating reactions of the others. This behavior includes tacit or express collusion, and may or may not be lawful in and of itself.

Successful coordinated interaction entails reaching terms of coordination that are profitable to the firms involved and an ability to detect and punish deviations that would undermine the coordinated interaction.

Detection and punishment of deviations ensure that coordinating firms will find it more profitable to adhere to the terms of coordination than to pursue short-term profits from deviating, given the costs of reprisal. In this phase of the analysis, the Agency will examine the extent to which post-merger market conditions are conducive to reaching terms of coordination, detecting deviations from those terms, and punishing such deviations. Depending upon the circumstances, the following market factors, among others, may be relevant: the availability of key information concerning market conditions, transactions and individual competitors; the extent of firm and product heterogeneity; pricing or marketing practices typically employed by firms in the market; the characteristics of buyers and sellers; and the characteristics of typical transactions.

Certain market conditions that are conducive to reaching terms of coordination also may be conducive to detecting or punishing deviations from those terms. For example, the extent of information available to firms in the market, or the extent of homogeneity, may be relevant to both the ability to reach terms of coordination and to detect or punish deviations from those terms. The extent to which any specific market condition will be relevant to one or more of the conditions necessary to coordinated interaction will depend on the circumstances of the particular case.

It is likely that market conditions are conducive to coordinated interaction when the firms in the market previously have engaged in express collusion and when the salient characteristics of the market have not changed appreciably since the most recent such incident. Previous express collusion in another geographic market will have the same weight when the salient characteristics of that other market at the time of the collusion are comparable to those in the relevant market.

In analyzing the effect of a particular merger on coordinated interaction, the Agency is mindful of the difficulties of predicting likely future behavior based on the types of incomplete and sometimes contradictory information typically generated in merger investigations. Whether a merger is likely to diminish competition by enabling firms more likely, more successfully or more completely to engage in coordinated interaction depends on whether market conditions, on the whole, are conducive to reaching terms of coordination and detecting and punishing deviations from those terms.

2.11 Conditions Conducive to Reaching Terms of

Coordination

Firms coordinating their interactions need not reach complex terms concerning the allocation of the market output across firms or the level of the market prices but may, instead, follow simple terms such as a common price, fixed price differentials, stable market shares, or customer or territorial restrictions. Terms of coordination need not perfectly achieve the monopoly outcome in order to be harmful to consumers. Instead, the terms of coordination may be imperfect and incomplete -- inasmuch as they omit some market participants, omit some dimensions of competition, omit some customers, yield elevated prices short of monopoly levels, or lapse into episodic price wars -- and still result in significant competitive harm. At some point, however, imperfections cause the profitability of abiding by the terms of coordination to decrease and, depending on their extent, may make coordinated interaction unlikely in the first instance.

Market conditions may be conducive to or hinder reaching terms of coordination. For example, reaching terms of coordination may be facilitated by product or firm homogeneity and by existing practices among firms, practices not necessarily themselves antitrust violations, such as standardization of pricing or product variables on which firms could compete. Key information about rival firms and the market may also facilitate reaching terms of coordination. Conversely, reaching terms of coordination may be limited or impeded by product heterogeneity or by firms having substantially incomplete information about the conditions and prospects of their rivals' businesses, perhaps because of important differences among their current business operations. In addition, reaching terms of coordination may be limited or impeded by firm heterogeneity, for example, differences in vertical integration or the production of another product that tends to be used together with the relevant product.

2.12 Conditions Conducive to Detecting and Punishing Deviations

Where market conditions are conducive to timely detection and punishment of significant deviations, a firm will find it more profitable to abide by the terms of coordination than to deviate from them. Deviation from the terms of coordination will be deterred where the threat of punishment is credible. Credible punishment, however, may not need to be any more complex than temporary abandonment of the terms of coordination by other firms in the market.

Where detection and punishment likely would be rapid, incentives to deviate are diminished and coordination is likely to be successful. The detection and punishment of deviations may be facilitated by existing practices among firms, themselves not necessarily antitrust violations, and by the characteristics of typical transactions. For example, if key information about specific transactions or individual price or output levels is available routinely to competitors, it may be difficult for a firm to deviate secretly. If orders for the relevant product are frequent, regular and small relative to the total output of a firm in a market, it may be difficult for the firm to deviate in a substantial way without the knowledge of rivals and without the opportunity for rivals to react. If demand or cost fluctuations are relatively infrequent and small, deviations may be relatively easy to deter.

By contrast, where detection or punishment is likely to be slow, incentives to deviate are enhanced and coordinated interaction is unlikely to be successful. If demand or cost fluctuations are relatively frequent and large, deviations may be relatively difficult to distinguish from these other sources of market price fluctuations, and, in consequence, deviations may be relatively difficult to deter.

In certain circumstances, buyer characteristics and the nature of the procurement process may affect the incentives to deviate from terms of coordination. Buyer size alone is not the determining characteristic. Where large buyers likely would engage in long-term contracting, so that the sales covered by such contracts can be large relative to the total output of a firm in the market, firms may have the incentive to deviate. However, this only can be accomplished where the duration, volume and profitability of the business covered by such contracts are sufficiently large as to make deviation more profitable in the long term than honoring the terms of coordination, and buyers likely would switch suppliers.

In some circumstances, coordinated interaction can be effectively prevented or limited by maverick firms -- firms that have a greater economic incentive to deviate from the terms of coordination than do most of their rivals (e.g., firms that are unusually disruptive and competitive influences in the market). Consequently, acquisition of a maverick firm is one way in which a merger may make coordinated interaction more likely, more successful, or more complete. For example, in a market where capacity constraints are significant for many competitors, a firm is more likely to be a maverick the greater is its excess or divertable capacity in relation to its sales or its total capacity, and the lower are its direct and opportunity costs of expanding sales in the relevant market.(19) This is so because a firm's incentive to deviate from price-elevating and output-limiting terms of coordination is greater the more the firm is able profitably to expand its output as a proportion of the sales it would obtain if it adhered to the terms of coordination and the smaller is the base of sales on which it enjoys elevated profits prior to the price cutting deviation.(20) A firm also may be a maverick if it has an unusual ability secretly to expand its sales in relation to the sales it would obtain if it adhered to the terms of coordination. This ability might arise from opportunities to expand captive production for a downstream affiliate.

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19 But excess capacity in the hands of non-maverick firms may be a potent weapon with which to punish deviations from the terms of coordination.

20 Similarly, in a market where product design or quality is significant, a firm is more likely to be an effective maverick the greater is the sales potential of its products among customers of its rivals, in relation to the sales it would obtain if it adhered to the terms of coordination. The likelihood of expansion responses by a maverick will be analyzed in the same fashion as uncommitted entry or committed entry (see Sections 1.3 and 3) depending on the significance of the sunk costs entailed in expansion.

2.2 Lessening of Competition Through Unilateral Effects

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A merger may diminish competition even if it does not lead to increased likelihood of successful coordinated interaction, because merging firms may find it profitable to alter their behavior unilaterally following the acquisition by elevating price and suppressing output. Unilateral competitive effects can arise in a variety of different settings. In each setting, particular other factors describing the relevant market affect the likelihood of unilateral competitive effects. The settings differ by the primary characteristics that distinguish firms and shape the nature of their competition.

2.21 Firms Distinguished Primarily by Differentiated Products

In some markets the products are differentiated, so that products sold by different participants in the market are not perfect substitutes for one another. Moreover, different products in the market may vary in the degree of their substitutability for one another. In this setting, competition may be non-uniform (i.e., localized), so that individual sellers compete more directly with those rivals selling closer substitutes.(

A merger between firms in a market for differentiated products may diminish competition by enabling the merged firm to profit by unilaterally raising the price of one or both products above the premerger level. Some of the sales loss due to the price rise merely will be diverted to the product of the merger partner and, depending on relative margins, capturing such sales loss through merger may make the price increase profitable even though it would not have been profitable premerger. Substantial unilateral price elevation in a market for differentiated products requires that there be a significant share of sales in the market accounted for by consumers who regard the products of the merging firms as their first and second choices, and that repositioning of the non-parties' product lines to replace the localized competition lost through the merger be unlikely. The price rise will be greater the closer substitutes are the products of the merging firms, i.e., the more the buyers of one product consider the other product to be their next choice.

2.211 Closeness of the Products of the Merging Firms

The market concentration measures articulated in Section 1 may help assess the extent of the likely competitive effect from a unilateral price elevation by the merged firm notwithstanding the fact that the affected products are differentiated. The market concentration measures provide a measure of this effect if each product's market share is reflective of not only its relative appeal as a first choice to consumers of the merging firms' products but also its relative appeal as a second choice, and hence as a competitive constraint to the first choice.(22) Where this circumstance holds, market concentration data fall outside the safeharbor regions of Section 1.5, and the merging firms have a combined market share of at least thirty-five percent, the Agency will presume that a significant share of sales in the market are accounted for by consumers who regard the products of the merging firms as their first and second choices.

Purchasers of one of the merging firms' products may be more or less likely to make the other their second choice than market shares alone would indicate. The market shares of the merging firms' products may understate the competitive effect of concern, when, for example, the products of the merging firms are relatively more similar in their various attributes to one another than to other products in the relevant market. On the other hand, the market shares alone may overstate the competitive effects of concern when, for example, the relevant products are less similar in their attributes to one another than to other products in the relevant market.

Where market concentration data fall outside the safeharbor regions of Section 1.5, the merging firms have a combined market share of at least thirty-five percent, and where data on product attributes and relative product appeal show that a significant share of purchasers of one merging firm's product regard the other as their second choice, then market share data may be relied upon to demonstrate that there is a significant share of sales in the market accounted for by consumers who would be adversely affected by the merger.

2.212 Ability of Rival Sellers to Replace Lost Competition

A merger is not likely to lead to unilateral elevation of prices of differentiated products if, in response to such an effect, rival sellers likely would replace any localized competition lost through the merger by repositioning their product lines.(23)

In markets where it is costly for buyers to evaluate product quality, buyers who consider purchasing from both merging parties may limit the total number of sellers they consider. If either of the merging firms would be replaced in such buyers' consideration by an equally competitive seller not formerly considered, then the merger is not likely to lead to a unilateral elevation of prices.

2.22 Firms Distinguished Primarily by Their Capacities

Where products are relatively undifferentiated and capacity primarily distinguishes firms and shapes the nature of their competition, the merged firm may find it profitable unilaterally to raise price and suppress output. The merger provides the merged firm a larger base of sales on which to enjoy the resulting price rise and also eliminates a competitor to which customers otherwise would have diverted their sales. Where the merging firms have a combined market share of at least thirty-five percent, merged firms may find it profitable to raise price and reduce joint output below the sum of their premerger outputs because the lost markups on the foregone sales may be outweighed by the resulting price increase on the merged base of sales.

This unilateral effect is unlikely unless a sufficiently large number of the merged firm's customers would not be able to find economical alternative sources of supply, i.e., competitors of the merged firm likely would not respond to the price increase and output reduction by the merged firm with increases in their own outputs sufficient in the aggregate to make the unilateral action of the merged firm unprofitable. Such non-party expansion is unlikely if those firms face binding capacity constraints that could not be economically relaxed within two years or if existing excess capacity is significantly more costly to operate than capacity currently in use.(24)

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21 Similarly, in some markets sellers are primarily distinguished by their relative advantages in serving different buyers or groups of buyers, and buyers negotiate individually with sellers. Here, for example, sellers may formally bid against one another for the business of a buyer, or each buyer may elicit individual price quotes from multiple sellers. A seller may find it relatively inexpensive to meet the demands of particular buyers or types of buyers, and relatively expensive to meet others' demands. Competition, again, may be localized: sellers compete more directly with those rivals having similar relative advantages in serving particular buyers or groups of buyers. For example, in open outcry auctions, price is determined by the cost of the second lowest-cost seller. A merger involving the first and second lowest-cost sellers could cause prices to rise to the constraining level of the next lowest-cost seller.

22 Information about consumers' actual first and second product choices may be provided by marketing surveys, information from bidding structures, or normal course of business documents from industry participants.

23 The timeliness and likelihood of repositioning responses will be analyzed using the same methodology as used in analyzing uncommitted entry or committed entry (see Sections 1.3 and 3), depending on the significance of the sunk costs entailed in repositioning.

24 The timeliness and likelihood of non-party expansion will be analyzed using the same methodology as used in analyzing uncommitted or committed entry (see Sections 1.3 and 3) depending on the significance of the sunk costs entailed in expansion.

3. Entry Analysis

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3.0 Overview

A merger is not likely to create or enhance market power or to facilitate its exercise, if entry into the market is so easy that market participants, after the merger, either collectively or unilaterally could not profitably maintain a price increase above premerger levels. Such entry likely will deter an anticompetitive merger in its incipiency, or deter or counteract the competitive effects of concern.

Entry is that easy if entry would be timely, likely, and sufficient in its magnitude, character and scope to deter or counteract the competitive effects of concern. In markets where entry is that easy (i.e., where entry passes these tests of timeliness, likelihood, and sufficiency), the merger raises no antitrust concern and ordinarily requires no further analysis.

The committed entry treated in this Section is defined as new competition that requires expenditure of significant sunk costs of entry and exit.(25) The Agency employs a three-step methodology to assess whether committed entry would deter or counteract a competitive effect of concern.

The first step assesses whether entry can achieve significant market impact within a timely period. If significant market impact would require a longer period, entry will not deter or counteract the competitive effect of concern.

The second step assesses whether committed entry would be a profitable and, hence, a likely response to a merger having competitive effects of concern. Firms considering entry that requires significant sunk costs must evaluate the profitability of the entry on the basis of long term participation in the market, because the underlying assets will be committed to the market until they are economically depreciated. Entry that is sufficient to counteract the competitive effects of concern will cause prices to fall to their premerger levels or lower. Thus, the profitability of such committed entry must be determined on the basis of premerger market prices over the long-term.

A merger having anticompetitive effects can attract committed entry, profitable at premerger prices, that would not have occurred premerger at these same prices. But following the merger, the reduction in industry output and increase in prices associated with the competitive effect of concern may allow the same entry to occur without driving market prices below premerger levels. After a merger that results in decreased output and increased prices, the likely sales opportunities available to entrants at premerger prices will be larger than they were premerger, larger by the output reduction caused by the merger. If entry could be profitable at premerger prices without exceeding the likely sales opportunities -- opportunities that include pre-existing pertinent factors as well as the merger-induced output reduction -- then such entry is likely in response to the merger

The third step assesses whether timely and likely entry would be sufficient to return market prices to their premerger levels. This end may be accomplished either through multiple entry or individual entry at a sufficient scale. Entry may not be sufficient, even though timely and likely, where the constraints on availability of essential assets, due to incumbent control, make it impossible for entry profitably to achieve the necessary level of sales. Also, the character and scope of entrants' products might not be fully responsive to the localized sales opportunities created by the removal of direct competition among sellers of differentiated products. In assessing whether entry will be timely, likely, and sufficient, the Agency recognizes that precise and detailed information may be difficult or impossible to obtain. In such instances, the Agency will rely on all available evidence bearing on whether entry will satisfy the conditions of timeliness, likelihood, and sufficiency.

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25 Supply responses that require less than one year and insignificant sunk costs to effectuate are analyzed as uncommitted entry in Section 1.3.

3.1 Entry Alternatives

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The Agency will examine the timeliness, likelihood, and sufficiency of the means of entry (entry alternatives) a potential entrant might practically employ, without attempting to identify who might be potential entrants. An entry alternative is defined by the actions the firm must take in order to produce and sell in the market. All phases of the entry effort will be considered, including, where relevant, planning, design, and management; permitting, licensing, and other approvals; construction, debugging, and operation of production facilities; and promotion (including necessary introductory discounts), marketing, distribution, and satisfaction of customer testing and qualification requirements.(26) Recent examples of entry, whether successful or unsuccessful, may provide a useful starting point for identifying the necessary actions, time requirements, and characteristics of possible entry alternatives.

26 Many of these phases may be undertaken simultaneously.

3.2 Timeliness of Entry

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In order to deter or counteract the competitive effects of concern, entrants quickly must achieve a significant impact on price in the relevant market. The Agency generally will consider timely only those committed entry alternatives that can be achieved within two years from initial planning to significant market impact.(27) Where the relevant product is a durable good, consumers, in response to a significant commitment to entry, may defer purchases by making additional investments to extend the useful life of previously purchased goods and in this way deter or counteract for a time the competitive effects of concern. In these circumstances, if entry only can occur outside of the two year period, the Agency will consider entry to be timely so long as it would deter or counteract the competitive effects of concern within the two-year period and subsequently.

27 Firms which have committed to entering the market prior to the merger generally will be included in the measurement of the market. Only committed entry or adjustments to pre-existing entry plans that are induced by the merger will be considered as possibly deterring or counteracting the competitive effects of concern.

3.3 Likelihood of Entry

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An entry alternative is likely if it would be profitable at premerger prices, and if such prices could be secured by the entrant.(28) The committed entrant will be unable to secure prices at premerger levels if its output is too large for the market to absorb without depressing prices further. Thus, entry is unlikely if the minimum viable scale is larger than the likely sales opportunity available to entrants.

Minimum viable scale is the smallest average annual level of sales that the committed entrant must persistently achieve for profitability at premerger prices.(29) Minimum viable scale is a function of expected revenues, based upon premerger prices,(30) and all categories of costs associated with the entry alternative, including an appropriate rate of return on invested capital given that entry could fail and sunk costs, if any, will be lost.(31)

Sources of sales opportunities available to entrants include: (a) the output reduction associated with the competitive effect of concern,(32) (b) entrants' ability to capture a share of reasonably expected growth in market demand,(33) (c) entrants' ability securely to divert sales from incumbents, for example, through vertical integration or through forward contracting, and (d) any additional anticipated contraction in incumbents' output in response to entry.(34) Factors that reduce the sales opportunities available to entrants include: (a) the prospect that an entrant will share in a reasonably expected decline in market demand, (b) the exclusion of an entrant from a portion of the market over the long term because of vertical integration or forward contracting by incumbents, and (c) any anticipated sales expansion by incumbents in reaction to entry, either generalized or targeted at customers approached by the entrant, that utilizes prior irreversible investments in excess production capacity. Demand growth or decline will be viewed as relevant only if total market demand is projected to experience long-lasting change during at least the two year period following the competitive effect of concern.

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28 Where conditions indicate that entry may be profitable at prices below premerger levels, the Agency will assess the likelihood of entry at the lowest price at which such entry would be profitable.

29 The concept of minimum viable scale ("MVS") differs from the concept of minimum efficient scale ("MES"). While MES is the smallest scale at which average costs are minimized, MVS is the smallest scale at which average costs equal the premerger price.

30 The expected path of future prices, absent the merger, may be used if future price changes can be predicted with reasonable reliability.

31 The minimum viable scale of an entry alternative will be relatively large when the fixed costs of entry are large, when the fixed costs of entry are largely sunk, when the marginal costs of production are high at low levels of output, and when a plant is underutilized for a long time because of delays in achieving market acceptance.

32 Five percent of total market sales typically is used because where a monopolist profitably would raise price by five percent or more across the entire relevant market,

it is likely that the accompanying reduction in sales would be no less than five percent.

33 Entrants' anticipated share of growth in demand depends on incumbents' capacity constraints and irreversible investments in capacity expansion, as well as on the relative appeal, acceptability and reputation of incumbents' and entrants' products to the new demand.

34 For example, in a bidding market where all bidders are on equal footing, the market share of incumbents will contract as a result of entry.

3.4 Sufficiency of Entry

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Inasmuch as multiple entry generally is possible and individual entrants may flexibly choose their scale, committed entry generally will be sufficient to deter or counteract the competitive effects of concern whenever entry is likely under the analysis of Section 3.3. However, entry, although likely, will not be sufficient if, as a result of incumbent control, the tangible and intangible assets required for entry are not adequately available for entrants to respond fully to their sales opportunities. In addition, where the competitive effect of concern is not uniform across the relevant market, in order for entry to be sufficient, the character and scope of entrants' products must be responsive to the localized sales opportunities that include the output reduction associated with the competitive effect of concern. For example, where the concern is unilateral price elevation as a result of a merger between producers of differentiated products, entry, in order to be sufficient, must involve a product so close to the products of the merging firms that the merged firm will be unable to internalize enough of the sales loss due to the price rise, rendering the price increase unprofitable.

4. Efficiencies

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(Revised Section 4 Horizontal Merger Guidelines Issued by the U.S. Department of Justice and the Federal Trade Commission April 8, 1997)

Competition usually spurs firms to achieve efficiencies internally. Nevertheless, mergers have the potential to generate significant efficiencies by permitting a better utilization of existing assets, enabling the combined firm to achieve lower costs in producing a given quantity and quality than either firm could have achieved without the proposed transaction. Indeed, the primary benefit of mergers to the economy is their potential to generate such efficiencies.

Efficiencies generated through merger can enhance the merged firm's ability and incentive to compete, which may result in lower prices, improved quality, enhanced service, or new products. For example, merger-generated efficiencies may enhance competition by permitting two ineffective (e.g., high cost) competitors to become one effective (e.g., lower cost) competitor. In a coordinated interaction context (see Section 2.1), marginal cost reductions may make coordination less likely or effective by enhancing the incentive of a maverick to lower price or by creating a new maverick firm. In a unilateral effects context (see Section 2.2), marginal cost reductions may reduce the merged firm's incentive to elevate price. Efficiencies also may result in benefits in the form of new or improved products, and efficiencies may result in benefits even when price is not immediately and directly affected. Even when efficiencies generated through merger enhance a firm's ability to compete, however, a merger may have other effects that may lessen competition and ultimately may make the merger anticompetitive.

The Agency will consider only those efficiencies likely to be accomplished with the proposed merger and unlikely to be accomplished in the absence of either the proposed merger or another means having comparable anticompetitive effects. These are termed merger-specific efficiencies.(35) Only alternatives that are practical in the business situation faced by the merging firms will be considered in making this determination; the Agency will not insist upon a less restrictive alternative that is merely theoretical.

Efficiencies are 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. Therefore, the merging firms must substantiate efficiency claims so that the Agency can verify by reasonable means the likelihood and magnitude of each asserted efficiency, how and when each would be achieved (and any costs of doing so), how each would enhance the merged firm's ability and incentive to compete, and why each would be merger-specific. Efficiency claims will not be considered if they are vague or speculative or otherwise cannot be verified by reasonable means.

Cognizable efficiencies are merger-specific efficiencies that have been verified and do not arise from anticompetitive reductions in output or service. Cognizable efficiencies are assessed net of costs produced by the merger or incurred in achieving those efficiencies.

The Agency will not challenge a merger if cognizable efficiencies are of a character and magnitude such that the merger is not likely to be anticompetitive in any relevant market.(36) To make the requisite determination, the Agency considers whether cognizable efficiencies likely would be sufficient to reverse the merger's potential to harm consumers in the relevant market, e.g., by preventing price increases in that market. In conducting this analysis,(37) the Agency will not simply compare the magnitude of the cognizable efficiencies with the magnitude of the likely harm to competition absent the efficiencies. The greater the potential adverse competitive effect of a merger--- as indicated by the increase in the HHI and post-merger HHI from Section 1, the analysis of potential adverse competitive effects from Section 2, and the timeliness, likelihood, and sufficiency of entry from Section 3--- the greater must be cognizable efficiencies in order for the Agency to conclude that the merger will not have an anticompetitive effect in the relevant market. When the potential adverse competitive effect of a merger is likely to be particularly large, extraordinarily great cognizable efficiencies would be necessary to prevent the merger from being anticompetitive.

In the Agency's experience, efficiencies are most likely to make a difference in merger analysis when the likely adverse competitive effects, absent the efficiencies, are not great. Efficiencies almost never justify a merger to monopoly or near-monopoly.

The Agency has found that certain types of efficiencies are more likely to be cognizable and substantial than others. For example, efficiencies resulting from shifting production among facilities formerly owned separately, which enable the merging firms to reduce the marginal cost of production, are more likely to be susceptible to verification, merger-specific, and substantial, and are less likely to result from anticompetitive reductions in output. Other efficiencies, such as those relating to research and development, are potentially substantial but are generally less susceptible to verification and may be the result of anticompetitive output reductions. Yet others, such as those relating to procurement, management, or capital cost are less likely to be merger-specific or substantial, or may not be cognizable for other reasons.

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35 The Agency will not deem efficiencies to be merger-specific if they could be preserved by practical alternatives that mitigate competitive concerns, such as divestiture or licensing. If a merger affects not whether but only when an efficiency would be achieved, only the timing advantage is a merger-specific efficiency.

36 Section 7 of the Clayton Act prohibits mergers that may substantially lessen competition "in any line of commerce . . . in any section of the country." Accordingly, the Agency normally assesses competition in each relevant market affected by a merger independently and normally will challenge the merger if it is likely to be anticompetitive in any relevant market. In some cases, however, the Agency in its prosecutorial discretion will consider efficiencies not strictly in the relevant market, but so inextricably linked with it that a partial divestiture or other remedy could not feasibly eliminate the anticompetitive effect in the relevant market without sacrificing the efficiencies in the other market(s). Inextricably linked efficiencies rarely are a significant factor in the Agency's determination not to challenge a merger. They are most likely to make a difference when they are great and the likely anticompetitive effect in the relevant market(s) is small.

37 The result of this analysis over the short term will determine the Agency's enforcement decision in most cases. The Agency also will consider the effects of cognizable efficiencies with no short-term, direct effect on prices in the relevant

market. Delayed benefits from efficiencies (due to delay in the achievement of, or the realization of consumer benefits from, the efficiencies) will be given less weight because they are less proximate and more difficult to predict.

5. Failure and Exiting Assets

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5.0 Overview

Notwithstanding the analysis of Sections 1-4 of the Guidelines, a merger is not likely to create or enhance market power or to facilitate its exercise, if imminent failure, as defined below, of one of the merging firms would cause the assets of that firm to exit the relevant market. In such circumstances, post-merger performance in the relevant market may be no worse than market performance had the merger been blocked and the assets left the market.

5.1 Failing Firm

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A merger is not likely to create or enhance market power or facilitate its exercise if the following circumstances are met: 1) the allegedly failing firm would be unable to meet its financial obligations in the near future; 2) it would not be able to reorganize successfully under Chapter ll of the Bankruptcy Act;(38) 3) it has made unsuccessful good-faith efforts to elicit reasonable alternative offers of acquisition of the assets of the failing firm(39) that would both keep its tangible and intangible assets in the relevant market and pose a less severe danger to competition than does the proposed merger; and 4) absent the acquisition, the assets of the failing firm would exit the relevant market.

38 11 U.S.C. 牂 1101-1174 (1988).

39 Any offer to purchase the assets of the failing firm for a price above the liquidation value of those assets -- the highest valued use outside the relevant market or equivalent offer to purchase the stock of the failing firm -- will be regarded as a reasonable alternative offer.

5.2 Failing Division

A similar argument can be made for "failing" divisions as for failing firms. First, upon applying appropriate cost allocation rules, the division must have a negative cash flow on an operating basis. Second, absent the acquisition, it must be that the assets of the division would exit the relevant market in the near future if not sold. Due to the ability of the parent firm to allocate costs, revenues, and intracompany transactions among itself and its subsidiaries and divisions, the Agency will require evidence, not based solely on management plans that could be prepared solely for the purpose of demonstrating negative cash flow or the prospect of exit from the relevant market. Third, the owner of the failing division also must have complied with the competitively-preferable purchaser requirement of Section 5.1.