



INTERNATIONAL TELECOMMUNICATION UNION

**WORKSHOP ON COMPETITION POLICY
IN TELECOMMUNICATIONS**

**Document: CPT/04
18 November 2002**

Geneva, 20 - 22 November 2002

COMPETITION POLICY IN TELECOMMUNICATIONS

BACKGROUND PAPER

This paper has been prepared for the ITU New Initiatives Workshop on Competition Policy in Telecommunications, on 20-22 November 2002, in Geneva. The background paper was prepared by Eric Lie (eric.lie@itu.int), a New Initiatives Project Manager in the Strategy and Policy Unit. Country case studies on competition policy in telecommunications, including Denmark, India and the United States of America can be found at <http://www.itu.int/osg/spu/ni/competition>. The opinions expressed in this study are those of the author and do not necessarily reflect the views of the International Telecommunication Union or its membership. The New Initiatives programme is managed by Tim Kelly (tim.Kelly@itu.int). For more information on the Programme, see the ITU website at www.itu.int/ni.

Table of Contents

1	Introduction	5
	1.1 Competition Trends in Telecommunications	5
	1.2 Structure of the Paper.....	7
2	The Rationale for Competition Policy.....	7
	2.1 The value of competition	7
3	The Basic Framework	10
	3.1 Laws and regulations	10
	3.1.1 Market definition and dominance	11
	3.1.2 Remedies	14
	3.2 Institutions.....	16
4	The Interplay of Telecommunications Regulation and Competition Law	16
	4.1 Deregulation and re-regulation	16
	4.2 The convergence of telecommunications regulation and competition law	17
	4.2.1 Asymmetrical regulation, market definition and dominance	18
	4.2.2 Substantive principles	20
	4.2.3 Institutional implications.....	22
	4.3 Challenges to competition policy: Access to the Internet.....	23
	4.3.1 Local access	24
	4.3.2 International Internet Access.....	25
5	Mergers, Acquisitions and other corporate alliances	27
	5.1 Consolidation trends in telecommunications	27
	5.2 Merger Control.....	28
	5.2.1 Substantially harm or reduce competition.....	29
	5.2.2 Vertical mergers	30
	5.2.3 Public benefit and efficiencies	31
	5.3 Merger Approval.....	32
6	Conclusion.....	33

List of Figures

Figure 1.1: Telecommunications Competition Just Keeps Growing 5
Figure 1.2 Percentage of Countries allowing Competition, for Selected ICT Services, 2001 6
Figure 2.1 Introducing Competition: do it early, do it often..... 8
Figure 2.2 Competition does reduce prices 9
Figure 4.1 –Competition in local access markets in the United States..... 26
Figure 5.1 Who approves mergers? 29
Figure 5.2 Analytical Process used by the Australian Competition and Consumer Commission
(ACCC) 31

List of Tables

Table 3.1: Typical Differences between a Competition Authority and Sector-Specific Regulator ... 16
Table 4 – Regulatory obligations on SMP operators 22

1 Introduction

1.1 Competition Trends in Telecommunications

1.1 In the last two years, telecommunication markets have witnessed significant falls in the value of shares and market capitalization, within the broader context of a global economic slowdown. From a competition angle, difficult market conditions have resulted in a reduction in the number of market players in some countries along with an overall decline in market entry and investment in the sector¹. Poor investor sentiment in particular has been cited as a major reason for delays in the privatization of incumbent fixed line operators in some countries, further delaying the eventual introduction of competition into these markets².

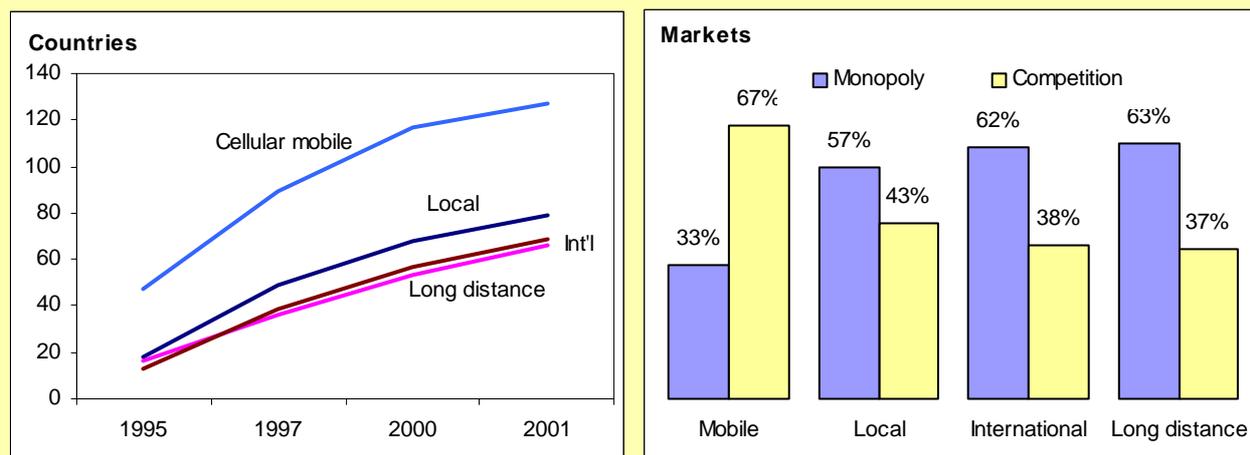
1.2 Despite the setbacks faced by telecommunications markets, the established trend has nonetheless been toward greater competition in telecommunications markets. Throughout the late 1990s and continuing to the present day, the number of countries introducing competition in basic telecommunications and wireless services has increased steadily (Figure 1.1).

1.3 Excluding the provision of basic services and leased lines, competition in general has become the regime of choice for the majority of countries (Figure 1.2). Despite lagging behind other telecommunications segments, the trend toward competition in basic services has continued to remain strong. In 2001, 79 countries allowed some competition in local services, an increase from 68 in 2000. In long-distance services, 66 allowed some form of competition in 2001 as compared to 53 a year before while in international services, 69 have allowed competition against 57 in 2000.

1.4 The trend towards market liberalization was reinforced, to a significant extent, by the commitments taken by signatory countries to the Fourth Protocol to the General Agreement on Trade in Services (GATS) that came into effect in February 1998. By late 2001, a total of 86 WTO economies made market access commitments in telecommunications services, including China and Taiwan, China, who acceded to the organization in November 2001³. With the launch of a new comprehensive Development Round covering all sectors, including telecommunications, during the WTO Ministerial Conference in Doha, Qatar in November 2001, the pace of market liberalization is clearly set to continue.

Figure 1.1: Telecommunications Competition Just Keeps Growing

Growth of competition in selected services

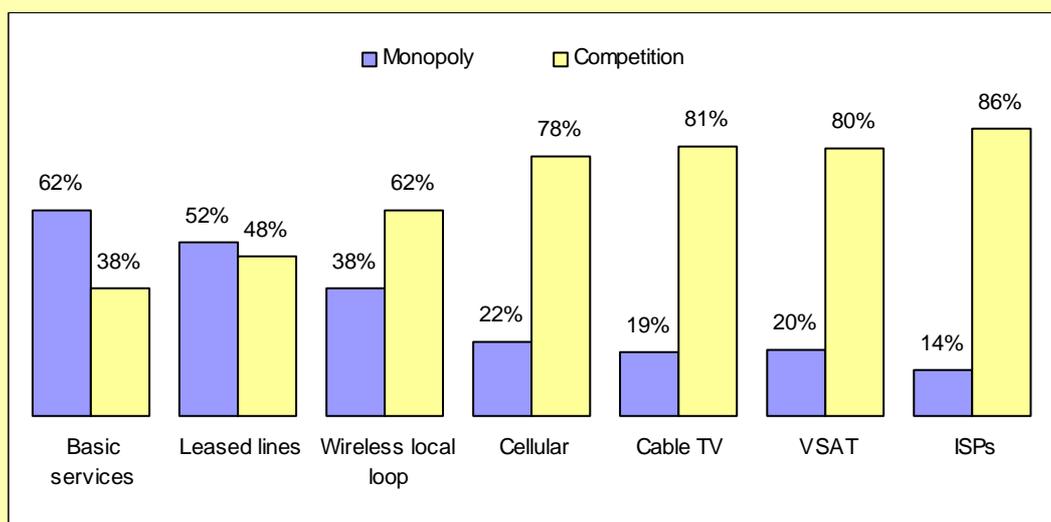


Source: ITU Trends in Telecommunications Reform 2002

¹ See Financial Times, 5 September 2001, "Glorious Hopes on a Trillion Dollar Scrapheap"

² The countries include Egypt, Honduras, Kenya, Thailand and Turkey.

Figure 1.2 Percentage of Countries allowing Competition, for Selected ICT Services, 2001



Source: ITU Trends in Telecommunications Reform 2002

1.5 In spite of this encouraging trend toward market liberalization, there are still significant concerns that remain as to the true extent of meaningful competition in telecommunications markets worldwide. In the provision of basic services for example, although more than 79 countries have allowed some competition in local service markets in 2001, only 46 countries had a second fixed-line operator to compete with the incumbent. Similarly, although over 81 per cent of countries claimed to allow competition in their cable TV markets last year, the real number of countries with effective competition is far fewer. For example, although nearly all African countries had authorized cable TV competition, many of these countries did not even have a single cable TV operator⁴.

1.6 Furthermore, despite the widespread authorization of competition in telecommunications markets, incumbents have tended to dominate in markets where they have been allowed to compete alongside new entrants, even in historically competitive markets such as that for mobile and Internet services. At the end of 2000, incumbents in the EU continued to control 50 per cent of the mobile services market and 40 per cent of the market for Internet service provision⁵.

1.7 In countries where telecommunications markets have been liberalized, it has become clear that market opening by itself has been insufficient to bring about the development of meaningful competition. In part, this reflects commercial realities such as limited market size, economic stability, and poor returns on investment. But it also reflects current government processes for setting competition policy. In this context, it has become increasingly important for countries to have the necessary policies and institutions in place to effectively deal with the increasing quantity and complexity of competition issues that are retarding the development of meaningful competition. Once the policy environment is right, then it can then be left up to business and consumers to determine the pace and direction of telecommunications market development.

³ See WTO press release, *China becomes 143rd WTO member*, available at http://www.wto.int/english/news_e/news01_e/news01_e.htm

⁴ ITU, Trends in Telecommunication Reform 2002, Chapter 1

⁵ Speech by Mario Monti, Competition Policy in the Telecommunications Sector, 30 Nov 2000. http://europa.eu.int/ISPO/docs/services/docs/2000/November/sp_00_480_en.pdf

1.2 Structure of the Paper

1.8 Competition policy is a term that has been used loosely to describe a wide range of government measures directed at affecting the behaviour of suppliers and the structure of the industry with the aim of facilitating competitive markets⁶. With competition policy in telecommunications being increasingly characterized by complex and diverse approaches taken by different countries, it has become necessary to take stock and to draw out the lessons of experience in order to identify key elements that can be used by a growing number of countries that have introduced varying degrees of competition in their telecommunications market. This paper is intended to provide a framework for understanding some of the evolving competition policy approaches that have been taken and the competition issues they have been designed to address.

1.9 Chapter 2 explores the rationale behind competition policy intervention in telecommunications markets. Chapter 3 then goes on to describe the basic competition framework that is present in many countries. This is followed by Chapter 4, which describes the current approach to competition policy in telecommunications while Chapter 5 then describes some the processes involved in competition policy reviews of mergers and acquisitions.

1.10 Although most of the examples in this paper have been taken from developed countries, the relevance of competition policy in telecommunications is perhaps even more important to developing ones. The successful management of competition can be a catalyst to obtaining lower prices, new and better services, greater consumer choice and increased investment in telecommunications markets.

2 The Rationale for Competition Policy

2.1 The value of competition

2.1 For a long time governments regarded telecommunications markets as natural monopolies. Gradually, however, this concept was eroded. Governments came to realize that not all segments of the telecommunications industry exhibited characteristics of a natural monopoly while at the same time technological advancements reduced previously prohibitive fixed costs and increases in demand required the installation of new capacity. As seen from the competition trends highlighted in Figure 1.2 above, most countries have made a distinction between different telecommunications markets based on their natural proclivity towards monopoly by introducing competition first in markets such as mobile services and Internet service provision while last in the local loop.

2.2 Governments, however, seldom see competition as an end in itself. Instead, competition is regarded as an alternative to monopoly regulation in achieving public policy roles such as increasing the availability of telecommunications services, decreasing prices and encouraging private sector investment. As such, governments have also shown themselves ready to intervene in competitive markets when the effect of competition is deemed undesirable with regard to overall economic policy (Box 2.1).

2.3 Results following telecommunications market liberalizations have been largely positive. Comparative studies undertaken recently by the ITU have indicated a significant co-relation between market liberalization measures with increases in mobile penetration rates and fixed line network growth (Figure 2.1). Furthermore, price reductions have also been shown to accompany the introduction of competitors into a market (Figure 2.2).

⁶ World Bank definition <http://www.worldbank.org/privatesector/ic/faq/q1.htm>

Box 2.1 Too much competition? Mobile handset subsidies in Korea

In the Korean mobile services market, competition was first introduced when Shinsegi Telecom joined the market incumbent Korea Mobile Telecom (renamed SK Telecom in 1997) in 1996. In October 1997, three new competitors were introduced into the market: KT Freetel, LG Telecom and Hansol PCS (later renamed as KTM). With the five competitors in the market, competition for subscribers was aggressive with generous handset subsidies being offered. At the end of 1998, the total value of handset subsidies totalled USD1.9 billion.

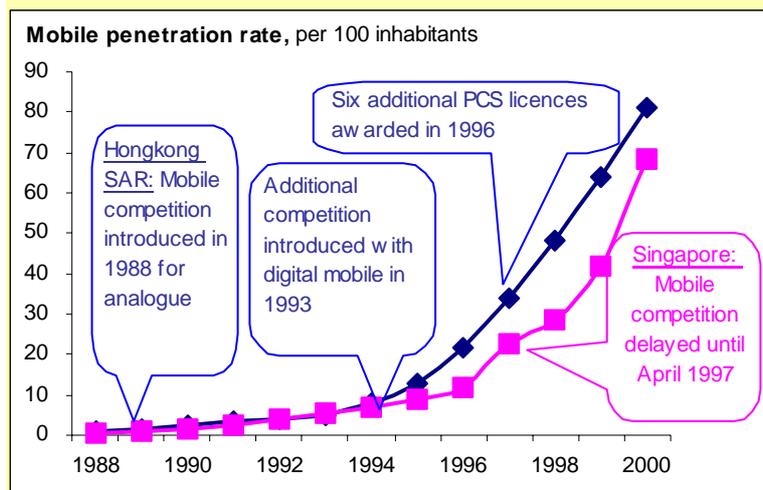
In February 1999, the “Korean National Parliamentary Hearing on the Economic Crisis”, critically debated the policy of allowing five mobile service providers to compete in the confined domestic market. The excessive amounts of handset subsidies were highlighted as a possible risk to the continued financial viability of the companies. In April 1999, the Korean Ministry of Information and Communications decided to intervene to restrict handset subsidies to \$125 per subscriber and to ban obligatory subscription periods, largely in the aim of securing profitability and improving management among mobile service providers. The growth in mobile subscriptions fell for the two consecutive quarters following the effective date of the ban in June 2000.

A series of mergers and acquisitions during the same period have reduced the number of mobile service providers in Korea from five to three. In October 2002, the Korean operators were each given heavy penalties for continuing to subsidise handsets.

Source: IT Industry Outlook of Korea 2002, Korea Information Society Development Institute (KISDI), at http://www.kisdi.re.kr/eng_kisdi/event.html; *Competition in Korean Mobile Telecommunications Market: Business Strategy and Regulatory Environment*, Seon-Kyou Choi, Myeong-Ho Lee, Gyu-Hwa Chung, Annual Conference of Korean Association for Telecommunications Policy, December 1999.

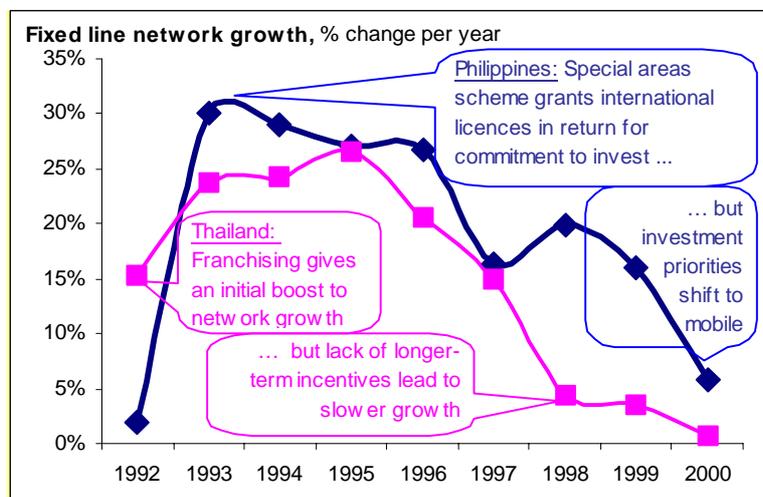
Figure 2.1 Introducing Competition: do it early, do it often

Comparison between level of mobile penetration in Hong Kong, China and Singapore, 1988-2001



Hong Kong, China and Singapore provide an interesting comparison. Both are relatively wealthy, and have technophile populations. Until the early 1990s, the demand for mobile phones was similar in each economy. But the pro-competitive stance adopted by Hong Kong, China has subsequently given it an edge of around 18 months in market development. Singapore’s adoption of competition in 1997 has helped to reduce, but not to close, this gap.

Comparison between level of fixed line network growth in the Philippines and Thailand, 1992-2001 (bottom)

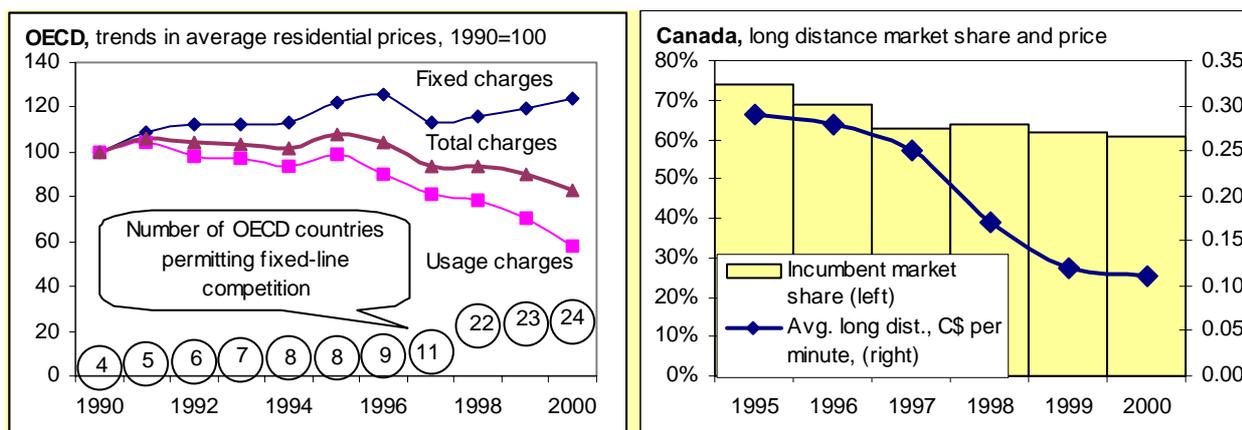


Thailand and the Philippines both agreed on the need to introduce private sector participation into their fixed-line networks. But whereas Thailand followed a franchising model (with the incumbent operators awarding licences), the Philippines followed a more radical policy of allowing operators to compete against the incumbent, in return for a commitment to invest in rural areas. Even allowing for lines lying idle, the Philippines’ fixed-line network still grew at a faster rate than Thailand’s, at least until mobile substitution became important.

Source: ITU World Telecommunication Development Report, 2002: Reinventing Telecoms.

Figure 2.2 Competition does reduce prices

Evidence from the OECD countries, 1990-2000 and from Canada, 1995-2000



Note: Left chart is based on trends in the OECD Tariff Comparison basket, and is based on the unweighted, indexed average of 29 OECD Member Countries with the level of 1990 prices set at 100. The right chart is based on average trends in Canadian long-distance markets. The share of Bell Canada is taken as representative of the general loss of market share by incumbents.

Source: OECD, Teligen (left). CRTC (right).

2.2 The transition to competition

2.5 Despite market liberalization, certain characteristics of telecommunications markets have nevertheless favoured the continued concentration of market power in the hands of incumbents. Some of these include:

- Strong network effects that reflect the desire by customers to make and receive calls from anyone (the value of any-to-any connectivity), causing customers to choose large networks over smaller networks in the absence of interconnection;
- Large sunk costs involved in the construction of essential facilities such as local networks;
- The long legacy of statutory public monopoly in telecommunications which has afforded the incumbent:
 - Scale and scope economies;
 - Benefits of established networks such wide subscriber base, deep pockets and market experience⁷; and
 - Vertical integration

2.6 In many cases, these barriers to competition are aggravated by the abusive behaviour of incumbent operators that exploit their position in a market to prevent or reduce competition in the market.

2.7 Given the market imperfections and the risks to competition, most governments have taken the decision to intervene directly in the market in order to guarantee access to essential facilities and networks controlled by the incumbent, so as to mitigate network effects and large sunk costs, and to prevent anti-competitive behaviour.

⁷ Incumbents enjoy significant advantages far beyond the infrastructure they own. More intangible factors such as brand recognition and loyalty to the incumbent operator may still persist long after the introduction of new players in the market.

3 The Basic Framework

3.1 Laws and regulations

3.1 The laws and regulations applied in competition policy in telecommunications market broadly take two forms: telecommunications regulation and competition law.

3.2 With 112 countries possessing a telecommunications regulator at the end of 2001⁸, government intervention in telecommunications markets largely takes the form of telecommunications regulation.

3.3 Designed to mitigate the adverse effects of telecommunications monopolies and to pursue public policy objectives, the role of telecommunications regulation has included a wide range of objectives that range from the promotion of universal service to basic telecommunications services to the protection of consumer rights⁹. To meet this wide range of objectives, telecommunications regulators have often applied broad-ranging rules or regulations that apply either to the entire industry or to certain categories within it. These regulations are typically applied ex-ante and are precise in setting the parameters of acceptable market behaviour. They range from explicit retail price control to the determination of access terms and conditions¹⁰.

3.4 A large number of countries have also adopted a set of competition laws that are applicable to most industries and that are designed to prohibit and prevent anti-competitive behaviour. Such laws tend to prohibit relatively broad categories of behaviour while leaving a relatively wide range of ex post enforcement discretion to the authorities. The narrower focus of competition law on preventing anti-competitive behaviour and its general ex post approach to enforcement has associated it with the principle of restraint in government competition policy intervention when compared against sector-specific regulation.

3.5 Three main types of generic anti-competitive laws can be identified.

- The first prohibits anti-competitive agreements between firms (see Box 3.1).
- The second prevents dominant firms from abusing their position by restricting competition (see Box 3.2).
- The third prohibits mergers and acquisitions that are likely to have a negative impact on competition.

Box 3.1 Selected Forms of Anti-Competitive Agreements

Price Fixing – Operators are generally prohibited to enter into agreements to fix prices or restrict output regardless of their levels. This prohibition extends to joint implementation of price increases, joint resistance to price decreases, the establishment of formulas to generate uniform pricing and the removal of lower price products from the market to shift demand to higher price products.

Bid Rigging – Operators are generally prohibited from co-coordinating separate bids in order to determine the results of that bid, including the eventual winner, the winning conditions and prices. In telecommunications markets this prohibition usually extends to bids for services, assets, resources or rights auctioned by third parties, including the government, as well as bids for the provision of services to third parties. Prohibited agreements typically include agreements not to enter certain bids and agreements to submit bids at certain conditions or prices.

Market and Customer Divisions – Operators are prohibited from entering into agreements not to compete in each other markets. This can involve agreements not to compete in the provision of telecommunications services, not to compete for specific types of customers or not to compete in specific geographic areas.

Group boycotts – Operators must not agree to refuse to do business with a specific supplier, competitor or customer.

Source: ITU

⁸ ITU World Telecommunications Regulatory Database

⁹ For a longer list of regulatory objectives see Telecommunications Regulation Handbook

¹⁰ An example of the vast scope of ex-ante regulatory rulemaking can be found in the FCC's rulemaking proceedings in the United States. www.fcc.gov

Box 3.2 Selected forms of Abuse of Dominant Position

Refusal to Deal (Essential Facilities Doctrine) - Dominant operators controlling essential facilities are prohibited from refusing to supply those facilities to a competitor. A facility is generally considered essential in competition law when it is:

- (1) Supplied on a monopoly basis.
- (2) Required by competitors in order to compete; and
- (3) Cannot be practically duplicated by competitors for technical or economic reasons.

Predatory Pricing - Predatory pricing occurs when a number of elements are met:

- (1) The dominant operator charges prices below a certain cost standard.
- (2) There is evidence of a policy of selling at predatory prices, not just sporadic or reactive price-cutting.
- (3) The dominant operator reasonably expects to recoup its losses after the period of price-cutting ends.

Cross Subsidization - Competition law prohibits dominant operators from using revenues it receives in a market in which it is dominant to cross-subsidize the price of a service it provides in another market. Where dominant operators participate in a number of telecommunications markets, there is a concern that these operators will abuse their dominant position by using excess revenues gained in the market it dominates to subsidize lower prices in other more competitive markets. Without the ability to cross-subsidize its services, new competitors may be unable to match prices offered by the dominant operator.

Excessive Pricing - the practice of excessive pricing is recognized as anti-competitive behaviour when it involves a dominant operator charging prices in excess of what it could normally charge in a competitive market.

Tied Sales or Bundling - A tied sale is the sale of a service on the condition that another service is purchased. The practice of tying or bundling sales is not in itself anti-competitive. They are only anti-competitive when they involve the tying or bundling of a service offered by a dominant operator in a market in which it is dominant. Where such services are essential to competitors, dominant operators may require competitors to purchase not only elements of the service they require but also other services. In some cases, these services can also be bundled with other services offered in a market in which it competes but is not dominant. Tying or bundling may also be anti-competitive when dominant operators offer bundles of services that cannot be met by competitors.

Source: ITU

3.1.1 Market definition and dominance

3.6 The application of competition laws rest largely on two fundamental concepts: market definition and dominance.

3.7 Market definition is important in two respects. Firstly, it is necessary to define a “relevant market” in order to establish if a firm has a dominant position in the market. Secondly, it provides the context for a market concentration analysis against which the competition implications of mergers and acquisitions can be assessed. Market definition analysis is typically done on an ex post basis in the former case while on a forward-looking basis in the latter.

3.8 In general, there are usually two dimensions to the market, a product dimension and a geographic dimension. These are typically defined on the basis of demand and supply substitution possibilities. A widely accepted practice begins with the application of a “hypothetical monopolist test”. Here the authority performing the analysis determines what substitution would take place if there were a small but significant non-transitory increase in the price (SSNIP) of a product or service. While the significance of the price increase depends on each individual case, price increases of between 5 to 10 per cent are normally applied. Products to which consumers would switch to in response to this increase would be included in the product market while the area over which this substitution can take place determines the geographic scope of the market¹¹.

¹¹ For more detail see the European Commission Notice on the definition of the relevant market for the purposes of Community at competition law (OJ C 372 9.12.1997) and Case T-83/91, *Tetra Pak v Commission*, [1994] ECR II-755, paragraph 68.

3.9 A demand substitutability analysis is often difficult to apply in the context of telecommunications markets where subtle distinctions between services exist and networks that interconnect and overlap. As opposed to the period when fixed voice telephony was the only product offered in telecommunications, the range of possible permutations of service offerings are now extremely wide, catering to an equally varied customer base. For example, a multinational corporation in need of international voice and data services may choose from a single large operator providing a full range of services with end-to-end connectivity or it might rely on smaller operators who peer with other networks. By the same token, an individual may also have a wide choice of products, for example, an individual seeking Internet access may choose from dial-up access, ISDN, ADSL or cable connections. To simplify matters, most competition authorities have adopted a customer-oriented approach, as opposed to a technology approach, to define demand side substitutability. This involves grouping together products viewed as substitutable by the consumer¹².

3.10 Similar complications exist in considering the geographical scope of the market. In telecommunications, where networks interconnect and extend beyond borders, exact geographical boundaries are hard to define. In the US, a demand substitutability test is also employed, defining in some instances, small point-to-point markets, for example, the market for long-distance calls from New York to Miami. These markets are then grouped together in cases where similar market and regulatory conditions are present, for example, all long-distance point-to-point markets can be grouped into a single long-distance market¹³. The European Commission (EC) also uses a similar approach, proceeding straight to identifying a geographic area where competition and regulatory conditions are similar¹⁴. In using this approach, the EC also takes into account interconnection and roaming agreements in determining the geographic scope of the market. For example, where roaming agreements apply, the EC has previously defined an EU-wide market for GSM mobile services, and where the possibility of interconnection with a long-distance network exists, a local cable network providing voice telephony can also be considered to have national geographic scope¹⁵.

3.11 Some of the characteristics that have been used to distinguish between Internet services provided on a global basis can be seen in the EC's review of the WorldCom/MCI merger (see Box 3.3).

3.12 In competition law, conduct is only sanctioned only when it amounts to abuse by firms that possess substantial levels of market power. The level of market power necessary to attract competition law intervention is commonly referred to as 'dominance'¹⁶. A number of qualitative and quantitative factors are commonly taken into account when assessing whether a level of dominance in the marketplace has been reached. These generally include¹⁷:

- Market share
- Barriers to entry
- The overall size of the firm
- Technological advances or superiority
- The absence of or low countervailing buying power

¹² For more information see in general, Jordi Gual (September 2002), Market Definition in the Telecoms Industry at <http://europa.eu.int/comm/competition/antitrust/others/telecom/market_definition.pdf>

¹³ *ibid*, pp. 22-23

¹⁴ For more detail, see Pierre Larouche (2000), Competition Law and Regulation in European Telecommunications, Hart Publications, pp.144-145.

¹⁵ See Decision of 19 December 1997, Case IV/M1055, Cegetel/Vodafone – SFR [1998] OJ C 16/13, CELEX number 397M1055 cf. Decision of 21 May 1999, Case IV/M1430, Vodafone/AirTouch [1995] OJ C 295/2 and Decision of 11 December 1996, Cases IV/M.853 and IV/M.865, Bell CableMedia/Cable & Wireless/Videotron and Cable & Wireless/Nynex/Bell Canada [1997] OJ C 24/22

¹⁶ Market power has been defined by the European Court of Justice as “A position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained in the relevant market by affording it the power to behave, to an appreciable extent, independently of its competitors, customers and ultimately consumers”, C-27/76 *United Brands v Commission* [1978] ECR 207.

¹⁷ Taken from Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (OJ C 165/6 11.7.2002), paragraph 78.

Box 3.3 WorldCom/MCI Merger: The market for “Top-level” Internet access

In its analysis of the WorldCom/MCI merger, the Commission identified the market for the provision of “top” level or “universal Internet connectivity” as a separate market from connectivity provided by ISPs and resellers. In accordance to Commission Guidelines on market analysis, the Commission first applied an “end-use test” to group together the products consumers use for the same purpose. This was then followed by a “hypothetical monopolist test” to distinguish potential separate product markets.

In applying the “end-use test”, the Commission discovered that the connectivity services offered by each ISP was unique, with each offering “a blend of, on the one hand, direct access to their own directly connected customers and customers of subordinate networks, and on the other, interconnection with other ISP’s networks, their customers and subordinate networks”. The service offerings could be differentiated in terms of:

- Content and price, which were dependent on factors such as the ISP’s network and its relationship with other networks,
- End-to-end quality, as a network which routes messages through many hops will not be able to offer the same standards as a network which is not required to.

The Commission considered that the only ISPs that were capable of delivering complete Internet connectivity on their own account are the top-level networks.

Second, the Commission analysed the effects onto the secondary peering ISPs and the resellers of a five to ten per cent increase in the price of top-level Internet connectivity (the “hypothetical monopolist test”). In the case of secondary peering ISP’s, they would only be able to provide limited substitutability in the provision of access but with significant gaps in their coverage. In the case of resellers, a price increase would have to be passed on to customers, effectively preventing them from acting as a competitive restraint on the prices charged by the top-level networks. As such, a five to ten per cent increase in price was not sufficient to encourage entry into the market.

Regarding the geographic scope of the market, the Commission decided that there was “one global market” after taking into account the international nature of the Internet in contrast to conventional voice telephony that was limited by national boundaries. It also noted that a price a rise in prices for access to top-level networks would affect consumers everywhere in the world.

Source: 99/287/EC Commission decision of 8 July 1998 declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement (case IV/M.1069 – WorldCom/MCI), OJL 116, 4.5.1999 p.1-35

- Easy or privileged access to capital/financial resources
- Product/services diversification (e.g. bundled products or services)
- Economies of scale and scope
- Vertical integration
- A highly developed distribution and sales network
- The absence of potential competition

3.13 Although the relative importance of these factors is determined largely on a case-by-case basis, market share is commonly used as a starting point in determining dominance. In general, a market share of 40% to 50% is highly indicative of dominance¹⁸. Depending on the product or services, market share can be measured in a number of ways. In telecommunications, common factors include revenue, the volume of traffic carried and the number of subscribers depending on market being evaluated and taking into account only one of the factors is generally insufficient. For example, in the case of Internet Backbone Providers (IBPs) and Internet Service Providers (ISPs), a measure of revenue and traffic flow might provide the best picture.

¹⁸ For example, in the EU, the European Court of Justice has found that there is a presumption of market dominance if a firm has a market share consistently above 50%, while in the US, using a HHI approach, a market share of 40-50% would be roughly equivalent to a HHI of 1,600 –2,500. A market HHI of 1800 or greater implies a highly concentrated market to the US Department of Justice.

Box 3.4 AOL/Time Warner Merger: Network Externality Effects and “Tippy” Markets

Network externality effects occur when the value of a service to a customer is increased as more customers use it, thereby encouraging even more customers to use it. In theory, where there are a number of firms of roughly equal size in such a market, the more profitable strategy would be to interoperate. A firm refusing to interoperate may find its competitors agreeing to interoperate, resulting in a loss of its customers to the interoperating firms. However, when a single firm reaches a critical mass of customers in its network that are so attractive to others that competitors will inevitably shrink in the absence of interoperation, a market is said to have “tipped” in favour of that firm. As more customers switch to that firm, its network externality effects increase, leading even more customers leaving competitors to join its network.

In January 2001, the FCC approved the merger of AOL and Time Warner subject to several conditions including a condition that prior to offering “advanced” instant messaging (IM) services, AOL Time Warner would be required to interoperate with its IM competitors. This requirement largely stemmed from concern over AOL’s dominance of the IM services market, a market that was found to have “tipped” in favour of AOL.

In its review the FCC focused on two indicators in considering whether the market had “tipped” in favour of AOL’s IM service: whether the number of AOL’s customers were increasing while that of its competitors were decreasing; and the reasons behind AOL’s refusal to interoperate. An examination of the latter is largely based on the assumption that in a market that has not tipped, all firms benefit from interoperating and, *ceteris paribus*, the only reason why a firm has chosen not to interoperate would be because it believes the market has tipped and wishes to gain customers at the expense of its competitors.

Source: Gerald Faulhaber (2002), Network effects and Merger Analysis: Instant messaging and the AOL-Time Warner case, Telecommunications Policy 26

3.14 In assessing dominance in networked industries such as telecommunications, particular notice is paid to network externality effects as a barrier to market entry (see Box 3.4). Although mandatory interconnection through regulation has mitigated network externality effects in certain telecommunications markets, considerations of these effects have nevertheless figured prominently in the WorldCom/Sprint merger filing by the US Department of Justice, a merger involving two long-distance, international and Internet backbone service providers, and the SK Telecom/Shinsegi Telecom merger review by the Korean Fair Trade Commission, a merger involving two mobile service providers¹⁹.

3.15 In some jurisdictions, the concept of collective dominance is recognized, allowing two or more firms to be assessed jointly. This is possible when the firms enjoy the same position vis-à-vis their customers and competitors as a single dominant firm would, provided that no effective competition existed between them²⁰.

3.1.2 Remedies

3.16 While behavioural constraints are commonly imposed by telecommunications regulation, competition law typically favours structural remedies. In general they require less regulatory oversight in the long run, which is a task that most competition authorities are ill equipped to do²¹. The structural remedies that are typically applied include accounting separations, vertical or horizontal structural separations, divestiture, and line-of business restrictions. Occasionally, mandatory accounting separation has been applied as an ex ante regulatory requirement on dominant operators in order to identify and prevent cross-subsidization.

3.17 Used strictly in cases of significant anti-competitive conduct, the structural separation of dominant telecommunications operators has proved effective in facilitating competition in highly concentrated markets. In some cases, structural separation is accompanied by the divestiture of ownership of the separated entities to independent parties to further ensure “arms-length” dealings.

¹⁹ US v. WorldCom and Sprint Corp. available at <http://www.usdoj.gov/atr/cases/f5000/5051.htm>; KFTC(2000). Decision No. 2000-76, Case No. 2000guikyu0129 available at www.ftc.go.kr

²⁰ Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (OJ L 108, 24.4.2002), Article 14(2).

²¹ Robert Pitofsky, “Prepared Statement of the Federal Trade Commission before The Committee on Commerce, Science, and transportation, United States Senate, November 8, 1999 at www.ftc.gov/os/1999/9911/telcomergerspitofsky.htm

Box 3.5 - A Natural Experiment on the Effects of Separation:

Comparing GTE and Bell Conduct in US Telecommunications

In the US, the 1982 consent decree that vertically separated AT&T did not impose line of business restrictions on its smaller rival in local telephony services, GTE. As a result, unlike the "baby Bells", GTE remained integrated, providing both local and long-distance telephony services. A recent study compares AT&T's negotiations to enter local markets served by GTE and by the local Bell company in the 22 states in which both GTE and a Bell company offered service. The results show differences in behaviour of the Bell companies and GTE in regard to access negotiations. In particular, it appears that:

- Agreements on access arrangements were more likely to be reached and to be reached more quickly under vertical separation. For example, the average delay in reaching an access agreement was 70% longer with GTE - 457 days with the Bells and 781 days with GTE.
- The incumbent was systematically more aggressive in negotiating under vertical integration. When going into arbitration, GTE offers a higher price for residential service in 15 out of 18 states and a higher price for business service in 13 of 18 states.
- Despite the same access regulation, entry is systematically lower in regions served by the integrated incumbent. Bell companies had a higher per cent of resold lines 12 times out of 15 in the case of residential lines and 14 out of 14 for business lines.

Although indicative, these differences may not be due to vertical integration alone. It is also possible that the Bell companies are responding to the incentives in the 1996 US Telecommunications Act, which encourages local companies to open up their local markets in return for entry into long-distance. GTE was acquired by Verizon, one of the Bell companies. As a result of this acquisition, GTE is now subject to line-of-business restrictions in the states served by Verizon.

Source: Frederico Mini, "The Role of Incentives for Opening Monopoly Markets: Comparing GTE and RBOC cooperation with Local Entrants", Georgetown University, Department of Economics, Working Paper 99-09, July 1999

3.18 A line of business restriction is a remedy that is often applied in tandem with structural separation. Vertically separated entities are often barred from entering into downstream businesses formerly occupied by the original operator in order to eliminate any repetition of the anti-competitive behaviour. For example, these were used in the AT&T divestiture as an incentive for the Regional Bell Operating Companies (RBOCs) to provide equal access to long-distance operators, a market which they could not enter.

3.19 Box 3.5 highlights some of the results from a study that compares the different behaviour of integrated and separated operators in the wake of the AT&T breakup. Access negotiations and new entry appear easier in markets where incumbents have been separated.

3.20 It has been argued, however, that structural separation and line of business restrictions have tended to affect market dynamics in a counterproductive way²². In most countries incumbents have tended to be the main drivers of progress and innovation in new markets through their vast resources and experience. For example, incumbents, subject to the vigorous competition from new entrants, led the progress made in Nordic mobile markets. Similarly in Japan, the incumbent NTT was the first to roll out innovative mobile Internet services.

3.21 Furthermore, structural separation and divestiture is generally viewed as a drastic measure that is only used in cases of serious and recurrent abuses by large dominant operators. It is often politically difficult and economically costly. Many countries are increasingly reluctant to break-up incumbents in view of the globalization of telecommunications markets where size and the ability to provide the full range of end-to-end services have been shown to be a key competitive advantage²³.

²² Jens Arnbak, *Regulation for next generation technologies and markets*, Telecommunications Policy Online, volume 2, no. 6/7 (July/August 2000),

²³ *Japan launches deregulation plan and avoids the issue of breaking up NTT*, April 1, 2001 at: http://uk.gsmbox.com/news/mobile_news/all/36125.gsmbox.

Table 3.1: Typical Differences between a Competition Authority and Sector-Specific Regulator

Feature	Competition Authority	Sector-Specific Regulation
Timing/Process	<ul style="list-style-type: none"> Typically applies remedies retrospectively. Specific complaint or investigation driven. Formal investigative, other procedures. Narrow scope for public intervention. 	<ul style="list-style-type: none"> Prospective as well as retrospective. Decisions or other processes of general application, as well as specific issue proceedings. Mix of formal and less formal procedures. Typically broader scope for public intervention.
Policy Focus	<ul style="list-style-type: none"> Objective to reduce conduct, which impedes competition. Focus on allocative efficiency/preventing abuse of market power or other misconduct. 	<ul style="list-style-type: none"> Typically applies multiple policy objectives Traditional (monopoly) regulation likely to pursue social objectives other than allocative efficiency (universal service for example) Transitional regulation may focus on preventing anti-competitive behaviour as market becomes more competitive; (ultimately forbearing from regulation may be a policy objective as competition becomes sufficient to protect public).
Scope	<ul style="list-style-type: none"> Economy wide, multiple industries. Powers of intervention and remedies tend to be narrowly defined. 	<ul style="list-style-type: none"> Usually industry-specific (usually develops greater sectoral expertise). Powers tend to be more broadly defined (correspond to breadth of policy objectives and procedures).

Source: World Bank/ITU 2000 *Telecommunications Regulation Handbook*, p1-2, available at www.infodev.org/projects/314regulationhandbook

3.2 Institutions

3.22 Institutions are needed to apply the laws and regulations described above. Most countries employ telecommunications regulators or a combination of both telecommunications regulators and competition authorities to implement competition policy in telecommunications. Only Australia and New Zealand, however, entrust competition policy in telecommunications *solely* to competition authorities. Some of the common differences between competition authorities and telecommunications regulators are set out in Table 3.1.

4 The Interplay of Telecommunications Regulation and Competition Law

4.1 Deregulation and re-regulation

4.1 In liberalized markets, a trend has developed in favour of reducing the extent of regulation while relying increasingly on competition to meet public policy objectives²⁴. For the most part this trend toward

²⁴ For insights into deregulation, see Werner Sichel and Donald L. Alexander, editors, *Networks, Infrastructure, and the New Task for Regulation*, Ann Arbor: The University of Michigan Press, 1996.

deregulation has been driven by a growing recognition of the benefits of competition (as was illustrated in Section 2.1). It has also been enforced by:

- A growing realization of the risk of regulation as it involves the use of imperfect instruments, devised under circumstances of asymmetric information and constant change²⁵,
- The increasing resistance on the part of business to pay compliance costs²⁶; and
- Globalization, which has provided the opportunity for business to select jurisdictions that allow the greatest amount of competition²⁷.

4.2 Deregulation, however, has rarely been accompanied by the abolition of all sector-specific regulation and a complete reliance on competitive forces constrained only by competition law. To date, only New Zealand has followed this approach closely.

4.3 However, following deregulation, many countries favoured a similar *ex post* approach in dealing with interconnection and access issues, relying on industry negotiations for agreements first and allowing operators to seek dispute resolution from telecommunications regulators or competition law remedies only when negotiations fail. For the most part, *ex-ante* regulation was avoided as it was felt that uniform access and interconnection terms and conditions would limit the capacity of negotiating parties to reach a custom made agreement that reflected their specific circumstances.

4.4 New Zealand's experience has demonstrated, however, that a heavy reliance on industry negotiation and *ex post* intervention through competition law is generally insufficient, especially in regard to interconnection and access involving incumbents (Box 4.1).

4.5 More than 50 countries established an *ex ante* interconnection and access regime of some form between 1995 and late 2000, doubling the number of countries that had such obligations in 1995²⁸. This was largely due to the limitations experienced in relying on an *ex post* regime.

4.2 The convergence of telecommunications regulation and competition law

4.6 In looking for a balance between minimizing government intervention and ensuring certainty and predictability in the application of competitive safeguards, a broad trend toward a converged approach to competition policy has emerged. In most countries, principles traditionally associated with competition law have been imported into the telecommunications regulatory framework. To different degrees, these have included principles of market definition and a focus on dominance. For the most part, telecommunications regulations have also been realigned with the objective of facilitating competition. Regulations have been amended to remove distortions to competition, such as moving from a cross-subsidy based approach to funding universal service to one that relies on a broader funding base that does not create competitive distortions, such as a universality fund²⁹, while pro-competitive regulations have been introduced, such as mandated interconnection and access obligations.

²⁵ Chapter 2, Telecommunications Regulation Inquiry Report, Australian Productivity Commission, December 2001.
<http://www.pc.gov.au/inquiry/telecommunications/finalreport/#publish>

²⁶ Compliance costs are incurred by both governments and operators which impose direct resource costs, such as the manpower employed, as well as indirect compliance costs, such as the opportunity costs incurred in waiting for decision.

²⁷ "Dissatisfaction prompts businesses to shop around, if possible, and to lobby for regulatory change, allowing more competition." *Towards a single market in utilities*, Report of the CEPS Working Party on Utilities, Centre for European Policy Studies, 1996, Brussels, page 20.

²⁸ ITU World Telecommunication Regulatory database

²⁹ Universality funds are independently administered funds that collect revenue from various sources and provide targeted subsidies to implement universality programs. For more details on Universal service obligations see World Bank/ITU 2000 *Telecommunications Regulation Handbook*, *supra* pp. 6-6 to 6-47.

Box 4.1: Reviewing the Regulatory Framework in New Zealand³⁰

In New Zealand, government intervention is confined to the application of the Commerce Act, which is New Zealand's generic competition legislation and on the Telecommunications (Disclosure) Regulations, which impose certain information disclosure obligations on New Zealand's dominant telecommunications provider, Telecom NZ.

Some of the weaknesses that have been identified in this regime include:

Uncertainty - Uncertainty occurs on two levels: Firstly, generic competition case law decisions on what amounts to anti-competitive behaviour are highly fact-specific and previous decisions are only fully applicable in relation to its specific set of facts. This makes it difficult for competitors to identify with certainty which actions have or have not breached the law. Secondly, competition law adjudication only decides on whether a particular action is illegal. It does not seek to define what is legal. This allows dominant providers to present new terms and conditions for negotiation that may still not result in agreement.

Delay - Adjudication in competition law often involves costly and lengthy litigation. In the case of interconnection issues, there is considerable incentive for a dominant player to resort to prolonged litigation in order to delay the entry of competitors. Litigation also increases the costs of market entry for competitors.

Complexity - In many jurisdictions, competition law is not sufficiently sophisticated to cope with the complexity of telecommunications access issues. Telecommunications interconnection disputes occur over a wide range products and services and in relation to a wide range of issues that are dynamic and multi-faceted, involving for example, temporal, functional and technical dimensions which are in a state of constant technological change. The application of competition law principles from legislation or existing case law by analogy may be insufficient to satisfactorily address interconnection disputes, thus requiring iterative disputes and litigation about different aspects of the same subject matter.

Source: Malcolm Webb & Martyn Taylor, Light-handed Regulation of Telecommunications in New Zealand: Is generic Competition Law sufficient? IJCLP Web-Doc 7-2-1999 available at http://www.ijclp.org/2_1999/ijclp_webdoc_7_2_1999.html

4.7 In countries where competition law and telecommunications regulatory regimes co-exist, sector exemptions from competition law have also been gradually narrowed, extending the concurrent application of competition law to telecommunications markets. For example, in the EU a series of decisions established the applicability of competition law to telecommunications markets³¹. The Access Notice, in particular, confirmed the applicability of EU competition rules in dealing *ex-post* with the abuse of dominant position while also clarifying that telecommunications regulation will generally take precedence when such action is pro-competitive and efficient³². In the absence of clear policy directives, the gradual extension of competition law into regulated telecommunications markets often continues through jurisprudence (Box 4.2).

4.2.1 Asymmetrical regulation, market definition and dominance

4.8 *Ex ante* telecommunications regulation has now generally taken the form of proportionate or "asymmetrical regulation" where the bulk of regulatory burdens are imposed on operators with market power and not on others. This approach has been largely adopted by the WTO Regulatory Reference Paper to the GATS 4th protocol, which 86 signatory countries have been bound to implement (Appendix)³³. In the Reference Paper the bulk of regulatory obligations lie on major suppliers, mirroring, to some extent, the competition law focus on dominant firms.

4.9 Despite similar conceptual underpinnings, the approach taken by telecommunications regulators in defining relevant markets and identifying dominance for purposes of applying asymmetrical telecommunications regulation differs from the general approach taken by competition authorities.

³⁰ For more detail, see the Final Report of the Ministerial Inquiry available at <http://www.teleinquiry.govt.nz/reports/final/index.html>

³¹ The history of telecommunications regulation in the EU is dealt with in a number of publications. See for example Herbert Ungerer, "EC Competition Law in the Telecommunications, Media and Information Technology Sectors", International Antitrust Law & Policy, Fordham University School of Law, 1995 Fordham Corp. L. Inst 000 (B. Hawk ed. 1996).

³² Notice on the application of the competition rules to access agreements in the telecommunications sector (OJ C 265, 22.8.1998, p.2), available at <<http://www.europa.eu.int/eur-lex/en/index.html>>

³³ World Trade Organisation (1997). Forth Protocol to the General Agreement on Trade in Services, Regulatory reference Paper. Geneva: WTO. Referred to as "the Reference Paper" in this paper.

Box 4.2 When Competition Policy Frameworks Overlap: Antitrust Law and Sector-Specific Regulation in case of the United States

Following the enactment of the Telecommunications Act of 1996, the US federal courts have examined the sector-specific Act's relationship to general antitrust law.

In the case of *Richard Goldwasser, et al., v. Ameritech Corp.*, a class action lawsuit in which the plaintiffs argued that Ameritech, a Bell company, had violated both the Telecom Act and the Sherman Act the US Seventh Circuit held that the plaintiffs had failed to allege any antitrust claim independent of the Telecom Act violations and that the "more specific legislation" must "take precedence over the general antitrust laws, where the two are covering precisely the same field."

In the subsequent June 2002 case of *Law Offices of Curtis V. Trinko, L.L.P. v. Bell Atlantic Corp.*, the Second Circuit court ruled that antitrust claims were not universally pre-empted by allegations of Telecom Act violations. The Second Circuit noted that certain antitrust claims—for example, those stemming from the essential facilities doctrine or monopoly leveraging behaviour—could be pursued independently of the Telecom Act's provisions. Moreover, the court noted that the plaintiffs, who were end users, had no redress for a violation of Telecom Act Section 251, which applied only to the interconnection rights of carriers. That left the Sherman Act as the plaintiffs' only tool to obtain redress for the alleged violations of competition law. The Second Circuit concluded that unless there was a "plain repugnancy"—a clear clash between the intent of a sector-specific statute and an antitrust law—"we will not assume that a regulatory statute implicitly repeals the antitrust laws."

This holding received support in August 2002 from a third appeals court, the Eleventh Circuit, which held in *Covad Communications Co., et al. v. BellSouth Corp.* that "a Sherman Act claim could be brought based on allegations of anti-competitive conduct that was 'intertwined' with obligations established by the Telecommunications Act of 1996." The Eleventh Circuit found that rather than pre-empting the Sherman Act, it was Congress' intent that the Telecom Act be used "in tandem" with existing antitrust laws to stimulate competition.

Source: ITU Country Case study on Competition Policy in Telecommunications in the United States available at www.itu.int

4.10 In place of a demand and supply substitution analysis, sector-specific regulation in general has traditionally relied on a service classification approach to market definition. From a statutory standpoint, service classifications have been an historical dividing line by which sector-specific regulatory regimes have been separated. Sector-specific regulators have subsequently built upon these statutory distinctions to create further distinctions as the basis for determining inclusion in one regulatory framework versus another³⁴. For example, legislation and jurisprudence in the United States initially created a distinction between information services and common carrier services. The Federal Communications Commission (FCC) has gradually refined this distinction through a number of proceedings, largely determining the scope of American *ex ante* regulation today³⁵.

4.11 Telecommunications regulators in general do not enjoy the flexibility of market definition displayed by competition authorities, which by nature are performed on a case-by-case basis and are, for the large part, unconstrained by statutorily defined boundaries. Nevertheless, there are signs that greater flexibility in defining markets is being given to regulators. In recent guidelines published, the EC sets out the use of a competition law substitutability test for market definition by National Regulatory Authorities (NRAs)³⁶.

4.12 In identifying major suppliers, telecommunications regulators have adopted a differing set of determinants, including the ownership or control of essential facilities, such as that used in the Reference Paper, and market share. Where market share is used as a factor, the thresholds are usually specified. For example, Japan retains a 25 per cent market share threshold for the application of additional regulation while

³⁴Gibbs, J & Hartman, T. (2001), *The regulation of convergence technologies: An argument for technologically sensitive regulation*. William Mitchell Law Review, 27, p. 2196

³⁵ See for example, the FCC Computer Inquiries, as illustrated in Robert Cannon (2001), "Where Internet Service Providers and Telephone Companies Compete: A Guide to the Computer Inquiries, Enhanced Service Providers and Information Service Providers" available at <http://www.cybertelecom.org/ci/guide.doc>

³⁶ Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (OJ C 165/6 11.7.2002), section 2.3.

Box 4.3 Significant Market Power (SMP) in Sweden

In Sweden, cost based interconnection rates can only be imposed on mobile operators with Significant Market Power (SMP). A presumption of SMP is raised when an operator has a market share of 25% or more of a particular telecommunications market. Sweden's Telia, which has a 31.4 per cent share of the national mobile market, has been designated as an operator with SMP since 1999.

Concerned with the high interconnection rates charged by the two other operators in the market, the Swedish regulator, Post- och telestyrelsen (the National Post and Telecom Agency, PTS), declared that Tele2 (which had a 16.6 per cent share of the market) and Europolitan Vodafone (13.4 per cent) had sufficient share in the interconnection market to be designated as having SMP, promptly announcing a review of whether their interconnection charges were cost-oriented. The rationale behind this decision was based on the fact that, together, these three operators controlled 90 per cent of the market for interconnection, including both fixed-line and mobile networks. Both Tele2 and Europolitan appealed the decision, claiming that it deviated "radically" from European Union regulation, and from the National Telecommunications Act, both of which stipulate the 25 per cent market share requirement. In April 2002, the Stockholm County Administrative Court granted their appeal, invalidating the PTS decision until further notice.

Source: Tele2 Statement, "Swedish watchdog eyes Europolitan, Tele2", 21 February 2002, "Europolitan Vodafone appeals SMP ruling", 13 March 2002, "Court blocks Swedish watchdog ruling on Tele2", 17 April 2002, Total Telecom News; PTS. See: http://www.pts.se/index_eng.asp.

in South Africa having a 35 per cent share of the market raises a presumption that the operator in question is a major operator³⁷.

4.13 A number of dangers, however, have been associated with this approach. For example, asymmetrical regulation based on established service classifications and strict quantitative measurements of market power have been implicated as a contributory cause for high prices found in mobile interconnection with major suppliers (see Box 4.3). Such an approach essentially constrains the negotiating power of the major supplier without imposing similar obligations on the non-major supplier, regardless of the fact that the non-major supplier may enjoy a position of dominance in his terminating network, a market that is not typically recognized under traditional service classifications³⁸.

4.2.2 Substantive principles

4.14 In most countries, asymmetrical regulation is typically applied in the context of interconnection and access with a view towards balancing the need for contractual freedom between non-dominant operators against the reluctance shown by incumbent operators in offering these services. While the scope of ex-ante interconnection and access rulemaking varies from country to country, a good global benchmark can be found in the Reference Paper.

4.15 Reflecting the Reference Paper benchmark, the scope of interconnection and access provision telecommunications is now largely determined by ex-ante regulation, moving many potential disputes from the general ambit of competition law to the more specific ambit of telecommunications regulation, specifying precisely, on an ex ante basis, the range of facilities and services major suppliers are required to make available and on what basis. Mandatory interconnection and access by major suppliers on regulated terms have largely taken the place of competition law prohibitions against anti-competitive conduct such as the refusal to deal or the 'Essential Facilities Doctrine' (see Box 4.4), discrimination, anti-competitive pricing and tied sales and bundling. Nevertheless, in some measure, regulatory obligations continue to largely reflect underlying substantive competition law principles. Table 4.1 matches some of the current regulatory obligations imposed on operators with significant market power (SMP) in EU member states

³⁷ MPHPT Japan Ordinance, Regulations for Enforcement of the Telecommunications Business Law, and Independent Communications Authority of South Africa (ICASA), 15 March 2000, Interconnection Guidelines issued by the authority in terms of section 43 of the telecommunications act 1996 available at www.icasa.org.za

³⁸ For further information on the topic of Fixed-Mobile Interconnection, see William Melody and Rohan Samarajiva, Fixed Mobile Interconnection Briefing Paper, ITU Workshop on Fixed-Mobile Interconnection (September 2000)

Box 4.4: The Essential Facilities Doctrine: MCI v. AT&T

The essential facilities doctrine evolved from the case law of the United States. It is generally thought that its clearest statement is found in *MCI v. AT&T*, a 1983 case involving interconnection in telecommunications decided before the break-up of AT&T. Among other claims against AT&T, MCI alleged that AT&T had refused to grant interconnection with its local network (or imposed unreasonable conditions on interconnection), thereby preventing MCI from offering any service other than long-distance leased lines. The Court of Appeal for the 7th circuit set out the law as follows:

“A monopolist’s refusal to deal under these circumstances is governed by the so called essential facilities doctrine. Such a refusal may be unlawful because a monopolist’s control of an essential facility (sometimes called a “bottleneck”) can extend monopoly power from one stage of production to another, and from one market to another. Thus, the anti-trust laws have imposed on firms controlling an essential facility the obligation to make the facility available on non-discriminatory terms.

The case law sets forth four elements necessary to establish liability under the essential facilities doctrine: (1) control of the essential facility by the monopolist; (2) a competitor’s inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility.”

Note: As a result of a change of the applicable law with the break-up of AT&T in 1984 and once more with the enactment of the Telecommunications Act of 1996, this case is of limited relevance today in so far as the legal framework of interconnection in the United States is concerned.

Source: *MCI v. AT&T*, 708 F 2d 1081 (7th Circ 1983)

under the Open Network Provision (ONP) regulatory framework with selected substantive principles of EU competition law³⁹.

4.16 Although largely sharing a similar conceptual basis, certain regulatory obligations in many countries go much further than would be possible in competition law. Some key examples would include imposing interconnection obligations between non-major suppliers, cost-oriented pricing for the provision of certain services by major suppliers, the mandatory disclosure of information, and, in some cases, an obligation on the major supplier to extend a reference interconnection offer (RIO) that is approved by the telecommunications regulator to all non-major suppliers seeking interconnection and access.

4.17 Beyond the obligations imposed on major suppliers under asymmetrical telecommunications regulation, the substantive principles of competition law continue to apply to markets where regulators have decided to “forbear” from regulation or where no dominant operator has been identified for purposes of asymmetrical regulation, such as in the case of markets for mobile services and Internet service provision. Some common examples of anti-competitive conduct occurring in these markets include discrimination and excessive pricing for mobile interconnection services, and predatory pricing in broadband Internet access services⁴⁰.

4.18 In countries where no separate competition law regime exists, these substantive principles prohibiting anti-competitive conduct have largely been translated into regulatory prohibitions that extend beyond the core asymmetrical access and interconnection regulations imposed on major suppliers. For example, in Malaysia, a process largely similar to that used in competition law has been adopted for the assessment of anti-competitive conduct in general, while in Singapore, the Telecommunications Competition Code prohibits a wide range of anti-competitive conduct such as predatory pricing, vertical price squeezing and discrimination⁴¹.

³⁹ For more information on the directives and recommendations constituting the ONP framework, see Larouche (2000), pp.5-6.

⁴⁰ See for example European Commission press releases: IP/02/483, 27.3.2002 “Commission suspects KPN of abusing its dominant position for the termination of calls on its mobile network” and IP/01/1899, 21.12.2001, “High-speed Internet Access: Commission suspects Wanadoo (France) of abusing its dominant position”.

⁴¹ Malaysian Communications and Multimedia Commission, *Guideline on substantial lessening of competition*, Rg/slc/1/00(1) available at <http://www.cmc.gov.my/codes/competition.htm> and Infocomm Development Authority of Singapore, Code of Practice for Competition in the Provision of Telecommunications Services (No. S412, 15 September 2000). Arts. 7 & 8 available at www.ida.gov.sg

Table 4 – Regulatory obligations on SMP operators

Obligations imposed on SMP operators by the ONP framework (with reference)	Applicable principle			
	Refusal to deal/EFD	Discrimination	Pricing	Unbundling
Directive 92/44 (Leased lines)				
No restrictions on connection of leased lines together or with public telecommunications networks Art. 6		X		
Non-discrimination in provision of leased lines Art. 8(2)		X		
Cost-orientation of leased lines Art. 10		X	X	
Directive 97/33 (Interconnection)				
Obligation to negotiate interconnection Art. 4(1)	X			
Meeting all reasonable requests for access Art. 4(2)	X	X		X
Calculation of universal service contributions Art. 5		X	X	
Non-discrimination and transparency in interconnection Art. 6		X		
Transparent and cost-oriented interconnection charges Art. 7			X	X
Accounting separation between interconnection and other activities Art. 8			X	
Pre-selection and call-by-selection Art.12 (7)	X	X		X
Directive 98/10 (Voice telephony)				
Conditions for access and use of voice telephony networks and services Art. 13	X			
Dealing with requests for special access Art. 16	X	X		X
Cost-orientation and unbundling of voice telephony tariffs Art. 17		X	X	X
Accounting principles Art. 18			X	
Non-discriminatory discount schemes Art. 19		X		

Source: Pierre Larouche (2000), Competition Law and Regulation in European Telecommunications, Hart Publishing, p.297.

4.2.3 Institutional implications

4.19 With competition law concepts and principles playing an increasing role in telecommunications regulation, some debate regarding the relative merits of entrusting telecommunications competition policy to either competition authorities or telecommunications regulators has emerged. Discussions on this subject, however, appear to be inconclusive with little empirical evidence indicating a clear choice⁴². Considering the lack of clear advantages, an Australian inquiry into telecommunications competition regulation displayed a preference for the status quo (Box 4.5).

⁴² For a discussion see OECD, Committee on Competition Law and Policy (June 1999), relationship between Regulators and Competition Authorities, DAF/CLP(99)8, p.29. "There appears to be no systematic research on the crucial questions of (1) whether competition agencies charged with economic regulation systematically perform that task differently from economic regulators and (2) whether economic regulators charged with competition law enforcement systematically discharge that function differently than competition agencies."

Box 4.5 Specific vs. Generic Regulators: An Australian View

In December 2001, the Australian Productivity Commission released a report on Telecommunications Competition Regulation in Australia. In its review, it examined the merits of its current approach of having a competition authority oversee both general competition law and telecommunications regulation and identified the following benefits associated with its framework:

- Horizontal economies of scope and scale in administering both rules
- Less likelihood of capture by a specific industry
- Consistency in methods and principles when applying access regimes and anti-competitive provisions
- Transfer of knowledge between experts in different sectors
- Effective means in dealing with converged sectors
- No self-interest in perpetuating telecommunications regulation should competition conditions require deregulation

Nevertheless, it was reported that in practice, the advantages were not large. In effect, key aspects of the Australian approach to telecommunications access regulations have been similar to those in countries with telecommunications specific regulators. Recalling the transaction costs involved in moving from one institutional framework to another, the report concluded that in the absence of compelling advantages to do so, the status quo should be preserved.

Source: Productivity Commission, Telecommunications Competition Regulation Inquiry Report, 21 December 2001, Australia <http://www.pc.gov.au/inquiry/telecommunications/finalreport/#publish>

4.20 In practice, no strong trend has emerged. New Zealand, which has entrusted telecommunications competition policy to a competition authority from the onset, is now in the process of creating an Electronic Communications Commissioner to assume that role while the Netherlands has initiated a process to integrate its telecommunications regulator, OPTA, with its competition authority, the NMa, establishing it as a chamber within the NMa⁴³.

4.21 Where a combination of telecommunications regulators and competition authorities apply competition policy, the need for clear lines of jurisdiction and close co-operation is increased. In many cases, liaison statements and regular co-ordination meetings can be used to prevent duplication or overlap (see Box 4.6).

4.3 Challenges to competition policy: Access to the Internet

4.22 The existing competition policy framework has been widely credited with the remarkable success in overcoming barriers to competition in long-distance and international services⁴⁴. While this is positive, the development of a layered global economy for electronic services threatens to place more pressures on the existing framework.

4.23 The essential feature of the global economy in electronic services is an increased reliance on a wide range of vertically related products and services that must be combined effectively. These activities can be divided into three different conceptual layers: the information/content layer, the network infrastructure layer and the access/applications software layer. Market imperfections in any of the layers threaten the value of the entire chain.

⁴³ New Zealand Ministerial Inquiry into Telecommunications, Final Report (27 September 2000) available at <http://www.teleinquiry.govt.nz/reports/final/index.html> and Nederlandse Mededingingsautoriteit (NMa), Press Release of 10 July 2002, OPTA and NMa Request Acceleration of Merger, available at <http://www.nma-org.nl/english/press/2002/pr02-24.htm>

⁴⁴ For example, following its October 2001 competition policy analysis of its telecommunications market, Denmark is considering abolishing all special obligations on SMP providers in the wholesale market for international connections. With regard to the main backbone network providers, a step-wise abolishment is being considered. Denmark Case Study on Competition Policy in Telecommunications available at www.itu.int/competition

Box 4.6 Competition policy co-operation in Denmark

With respect telecommunications regulation, the Danish telecommunications regulator, the IT- and Telecom Regulatory Agency, is the prime authority, combining its initiatives with the Danish Competition Authority in relation to a) maximum prices in the universal service area, and b) standard offers of operators with significant market power in the interconnection area. In both these cases, the IT- and telecommunications agency must consult the competition authority for a binding statement. The competition authority also, in cooperation with the IT- and telecommunications agency, surveys the accounting separation of operators with significant market power, issuing binding statements, and intervenes in cases where the general rules of competition limitation or abuse of dominant position are relevant. This applies, for instance, in cases of predatory pricing, where the IT- and telecommunications agency has no authority.

There is a cooperative relationship between the competition authority and the sector-specific IT- and telecommunications authority with the purpose of ensuring an efficient supervision of competition in the telecommunications market and establishing a one-stop-shopping procedure for players in the market. In 1997, a working group with reference to the competition authority and the telecommunications agency examined possible overlaps in authority. The result of this work constituted the basis for the current relationship between the two regulatory authorities. Contact meetings are held four times a year between the two authorities, exchanging information and discussing matters of mutual interest. Furthermore, there is a continuous cooperation based on contact persons in the two authorities and there are principles and procedures for the processing of cases.

Source: Denmark Case Study on competition policy in telecommunications: available at www.itu.int/competition

4.24 At the infrastructure layer, the Internet constitutes the dominant core network used for transmission in the global market for electronic services⁴⁵. Access to that network, however, is currently constrained by market power concentrations at two levels: the local access level and the international access level⁴⁶.

4.3.1 Local access

4.25 Access at the local level is being increasingly seen as vital for the provision Internet services that allow consumers to enjoy the full range of global electronic services available. Although narrowband dial-up access is currently the predominant form of access to the Internet, the development of multimedia services and other bandwidth hungry electronic services is expected to propel demand for access to high-speed broadband services. With the local loop being the primary mass distribution network in place, many countries regard competition in the local loop to be a prerequisite for effective competition in the provision of broadband services.

4.26 In the context of competition policy, a number of solutions to increase competition in the local loop have been attempted. In some countries, access to the unbundled local loop of the incumbent has been mandated on regulated terms and prices. In the case of the EU, the unbundling of the local loop was initiated through an EC recommendation, the enforcement of which rested on the basis of EU Competition Rules, in particular, the prohibition against the anti-competitive refusal of access to an essential facility⁴⁷.

4.27 In late 2001, a total of 41 countries had mandated local loop unbundling in one form or another⁴⁸. In general, more higher-income countries have embraced local loop unbundling than developed ones with 26 out of 30 OECD members having established timetables for its introduction.

4.28 Despite mandating unbundled access to the local loop 5 years ago, the slow growth of competition in local access markets in the United States has added to the doubts surrounding the effectiveness of this

⁴⁵ The Internet is usually defined as a packet-switched network of interconnected and overlapping networks designed for data transfer, delivery and retrieval, which use standardized protocols of which TCP/IP is the most important, to exchange traffic.

⁴⁶ See for example Herbert Ungerer (2000), *Access Issues under EU Regulation and Anti-trust Law: The Case of Telecommunications and Internet Markets*, International Journal of Communications Law and Policy, Issue 5, Summer 2000 available at <http://www.ijclp.org>

⁴⁷ Commission Recommendation on Unbundled Access to the Local Loop, C(2000)1059, 26 April 2000. See also Communication from the Commission: "Unbundled Access to the Local Loop, COM(2000)237, 26 April 2000.

⁴⁸ ITU World Telecommunications Regulatory Database

policy (Figure 4.1). In particular a decline in the usage of facilities-based lines has been observed in the last one year, further adding to concerns over the long-term prospect of developing facilities-based competition.

4.29 Concurrently, countries are increasingly looking towards inter-modal competition as a viable means of promoting facilities-based competition in the provision of local access where such alternatives exist. Efforts are being undertaken by a number of countries to tilt the competition policy framework towards the creation of alternative local infrastructure. In the EU, for example, structural remedies based on competition law were used to encourage competition between the local loop and cable TV infrastructure. Through successive directives, the EC required first accounting separation and then the legal separation of cable TV networks from incumbent telecommunications operators⁴⁹.

4.30 Other support measures, particularly forbearance from regulation, have also been used to create a favourable competition policy environment for alternative local infrastructure. In the US, for example, the FCC has refrained from requiring open access to cable TV networks while continuing to require unbundled access to the local loop. Recently however, the FCC has taken the tentative decision to reclassify broadband services provided over both the fixed local loop and cable TV networks as “information services”, in effect raising the possibility of removing these services from access regulation⁵⁰. Similar methods of regulatory support for alternative infrastructure can also be seen in the example of Singapore where although classified as a dominant operator, the sole cable TV operator in the island has nevertheless been granted exemptions from the bulk of obligations requiring interconnection and unbundled access that are fully applicable to the incumbent fixed local loop operator⁵¹.

4.3.2 International Internet Access

4.31 The issue of access to the Internet at an international level has focused, in recent years, on the concentration of market power in a small number of international Internet backbone service providers and on the charging practices of a number of these providers, in particular, the refusal of North American based international Internet backbone providers to provide such services on a peering basis or on a settlement basis that reflected the direction of traffic⁵².

4.32 In the context of competition law on a domestic level, a refusal to enter into reciprocal arrangements has been classified in Australia as conduct falling under the competition law prohibition against the anti-competitive refusal to supply goods or services⁵³. In 1998, the ACCC found that the incumbent operator, Telstra, was contravening the prohibition by charging its ISP competitors for Internet backbone services while at the same time not paying for similar services received from those same competitors. The higher costs incurred by competing ISPs threatened their viability and resulted in higher prices to downstream ISPs and, ultimately, end-users.

⁴⁹ See Directive 90/388 of 28 June 1990 on competition in the markets for telecommunications services [1990] OJ L 192/10, Art.9, as replaced by Directive 1999/65 of 23 June 1999 in order to ensure that telecommunications networks and cable TV networks owned by a single operator are separate legal entities [1999] OJ L 175/39, Art.1.

⁵⁰ See Federal Communications Commission (FCC), Notice of Proposed Rulemaking, Appropriate Framework for Broadband Access to the Internet over Wireline Facilities (FCC 02-42, Released: 15 February 2002), FCC Notice of Proposed Rulemaking, Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services (FCC 01-360, Released: 20 December 2001), and FCC, Declaratory Ruling and Notice of Proposed Rulemaking, Inquiry Concerning High-speed Access to the Internet Over Cable and Other Facilities; Internet over cable declaratory ruling; Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable facilities (FCC 02-77, Released 15 March 2002).

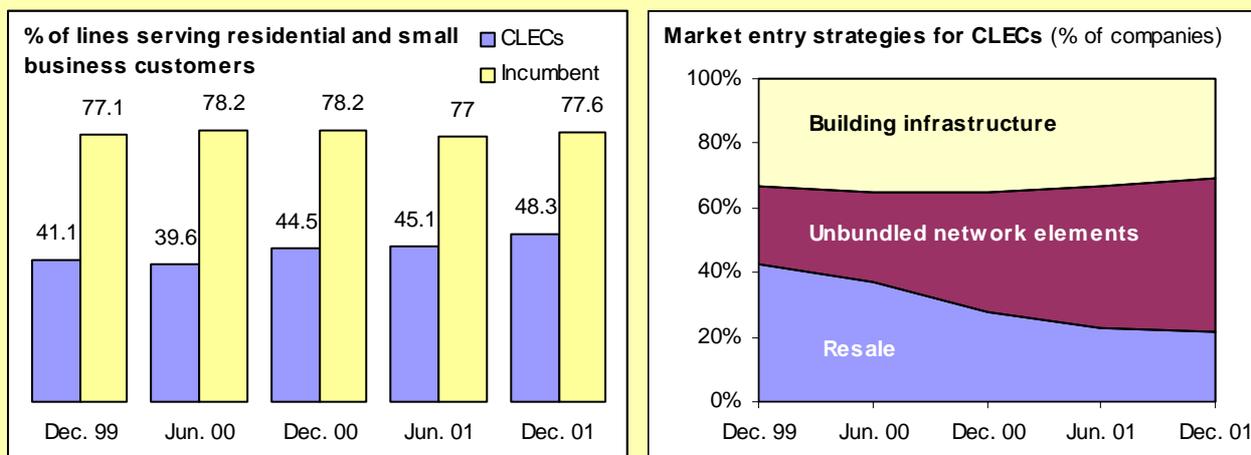
⁵¹ Infocomm Development Authority of Singapore, Code of Practice for Competition in the Provision of Telecommunications Services, Designation of Dominant Licensees (No. 2535, 15 September 2000)

⁵² For a summary of the concerns regarding these charging practices, see for example, Timothy Denton, James Savage, and Robert Frieden, International Charging Arrangements for Internet Services (ICAIS) Modules 1 to 3 and Final Report (March 2000) available at www.tmdenton.com.

⁵³ See Australian Competition and Consumer Commission, Anti-competitive conduct in telecommunications markets – An information paper (August 1999) available at http://www.accc.gov.au/pubs/Publications/Utilities/Telecommunications/anticomp_telecom.pdf

Figure 4.1 –Competition in local access markets in the United States

Growth in Competitive Local Exchange Carriers (CLEC), in gaining Residential and small business customers, and in market entry strategies, 1999-2001



Source: Local Telephone Competition: Status as of December 2001, Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission, July 2002 at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/lcom0702.pdf.

4.33 In contrast, however, no action has been deemed necessary with regard to similar charging arrangements on a domestic level in the United States⁵⁴. Nevertheless, the market for “Tier-1” or national Internet backbone services continues to be “highly concentrated” as described by the US Department of Justice in its filing against the WorldCom/Sprint merger⁵⁵.

4.34 On an international level, a competition law solution has not been successfully pursued given the nascent level of development of the international competition policy framework. Nevertheless, international concern over charging practices has resulted in the adoption of Recommendation D.50 by the International Telecommunications Union in October 2000 on International Internet Connectivity, which recommends:

“that administrations and recognized operating agencies involved in the provision of international Internet connections negotiate and agree to bilateral commercial arrangements enabling direct international Internet connections that take into account the possible need for compensation between them for the value of elements such as traffic flow, number of routes, geographical coverage and cost of international transmission amongst others.”

Study Group 3 of the International Telecommunications Union Standardization Sector (ITU-T) is tasked with the further study and implementation of the recommendation.

4.35 To a large extent, the issue of charging practices has been mitigated by a fall in prices for bandwidth on the international Internet backbone⁵⁶. However, these changes have predominantly benefited regions where connectivity to the international Internet backbone itself is plentiful. In many developing countries, the high cost of international Internet access is often directly related to the state of competition for connectivity to the international Internet backbone, which is usually a monopoly of the national public operator⁵⁷. While a number of developing countries have liberalized this market by allowing local ISPs to

⁵⁴ FCC, Report on the Deployment Of Advanced Telecommunications Capability To All Americans In A Reasonable And Timely Fashion, And Possible Steps To Accelerate Such Deployment Pursuant To Section 706 Of The Telecommunications Act Of 1996 - Text. Released: 02/02/1999.

⁵⁵ US v. WorldCom and Sprint Corp. p. 14 available at <http://www.usdoj.gov/atr/cases/f5000/5051.htm>

⁵⁶ Communications Week International (6 May 2002), *Carriers Fail While Bandwidth Prices Fall*, available at <http://www.telegeography.com/press/coverage/2002/05-06c-2002.html>

⁵⁷ For detailed discussion of international Internet connectivity in developing countries, see Claudia Sarrocco, Background Paper on Improving IP Connectivity in Least Developed Countries, ITU Workshop on Improving IP Connectivity in Least Developed Countries, April 2002 available at <http://www.itu.int/osg/spu/ni/ipdc/index.html>.

connect directly with the international Internet Backbone, the costs that local ISPs incur in doing so still remain high⁵⁸. High prices for connectivity to the points of presence of international Internet backbone providers have been attributed to a number of factors including the use of expensive transmission mediums such as satellite links and the lack of competition in the market for such connectivity, which is in part related to the small domestic demand for Internet services in these countries.

4.36 A number of solutions have been advanced, such as the use of Internet exchanges to aggregate regional demand as well as encouraging local ISPs to own their own international connectivity to international Internet backbones. The application of competition policy principles, however, can also be presented as a possible complementary solution. In many developed countries, ex ante regulation is applied to markets for direct connectivity services (leased lines)⁵⁹. The application of similar regulatory tools such as mandatory access, cost-orientation of prices, non-discrimination, transparency and accounting separation to international connection services may be mooted as a possible safeguard against pricing practices that result from the lack of competition in these markets.

4.37 In general, a competition policy approach to access problems on an international level has been hampered by the lack of an international competition policy framework. At present, bilateral co-operation agreements on anti-competitive activities represent the most concrete form of international co-operation in that area⁶⁰. On a multi-lateral level, work is progressing in this area at the OECD, through a series of recommendations on cooperation among OECD member states in the certain areas of competition policy⁶¹. In recognizing the importance of a multilateral framework to enhance the contribution of competition policy to international trade and development, the Ministerial declaration at the WTO Ministerial Meeting at Doha in 2001 may also pave the way for greater progress in the development of a multilateral competition policy framework⁶².

5 Mergers, Acquisitions and other corporate alliances

5.1 Consolidation trends in telecommunications

5.1 Although the number of telecommunications mergers, acquisitions and corporate alliances (collectively referred to as “mergers” for convenience) have declined with the global slowdown, there were nevertheless noteworthy deals that were concluded including Deutsche Telekom’s USD 24.9 billion acquisition of U.S. wireless operator VoiceStream Wireless Corp. in May 2001 and Telia’s Euro 7.4 billion merger with Sonera in July 2002⁶³.

5.2 In market for mobile services, the number of mobile operators has increased steadily worldwide since 1990 with mergers being a rare occurrence. Increasing, however, business costs associated with the

⁵⁸ For example, see *ibid*, p.30. In Mozambique, ISPs are allowed to connect directly to international Internet backbones through VSATs, but the cost of international connectivity still accounts for 88 per cent of network costs.

⁵⁹ See for example “Public consultation on a draft Commission Recommendation On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services”, p.22 Dedicated Connections and capacity (Leased Lines) available at http://europa.eu.int/information_society/topics/telecoms/news/documents/recommendation_directive_2002_21_EC/206_17_rec_public_consultation.pdf

⁶⁰ See for example Agreement between the Government of Japan and the Government of the United States of America Concerning Co-operation on Anticompetitive Activities, October 8, 1999 available at <http://www.jftc.go.jp/e-page/about/agree/index.html>

⁶¹ See in general competition recommendations by the OECD available at http://www.oecd.org/EN/links_abstract/0..EN-links_abstract-768-nodirectorate-no-no-1204-768.00.html

⁶² Ministerial Declaration at the Doha WTO Ministerial (November 2001), WT/MIN(01)/DEC/1 available at http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_e.htm

⁶³ European Commission press release, *Commission clears merger between Sonera and Telia subject to conditions* (IP/02/1032 10/7/2002).

rollout of 3G networks, however, have prompted analysts to predict increasing consolidations in the industry⁶⁴.

5.2 Merger Control

5.3 Concern with mergers largely stem from the same concerns competition law has regarding anti-competitive behaviour. In essence, the rationale for merger control is based on the prevention of the excessive concentration of market power that, in turn, increases the potential for abuse. Some mergers, however, can yield significant benefits such economies of scale or scope or savings through vertical integration. Hence a blanket prohibition of mergers, even between competitors is uncommon. Only mergers that would be likely to have the effect of substantially harming or reducing competition are prohibited.

5.4 Although the approval of mergers in the telecommunications sector is generally the responsibility of competition authorities, in countries where no such authority exists merger activities are typically reviewed by ministries or regulators (Figure 5.1). In some countries, both competition authorities and regulators are involved in the review of mergers. For example, in the US, telecommunications mergers are reviewed by both the telecommunications regulator, the FCC, as well as by the competition authority, the Department of Justice (DOJ)⁶⁵.

5.5 The scope of merger regulation varies from country to country. As a general rule, only certain mergers attract the requirement of notification and review. Firstly, only firms with a certain volume of business activity, measured typically by the combined turnover or revenue of the firms, require possible review. Secondly, only certain types of business consolidations attract possible review. Typically, they include mergers, acquisitions of controlling interests, and joint ventures⁶⁶. Terms used by industry to describe the nature of business consolidation, such as strategic alliances or partnerships generally do not play a part in deciding whether a merger review applies. Business consolidations that are not subject to merger review may nevertheless be reviewed on the basis of competition law prohibitions on anti-competitive agreements.

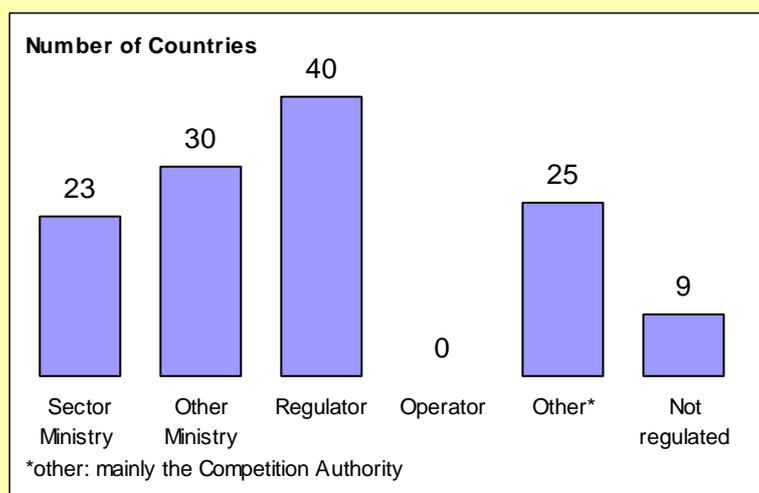
5.6 On receiving notice of a proposed merger, competition authorities will normally undertake a preliminary evaluation of the merger to determine if any anti-competitive concerns warrant a more detailed investigation of the proposed merger. If the circumstances so warrant, further information regarding the merger, from the parties involved as well as from third parties such as customers and competitors will be demanded.

⁶⁴ Gartner press release, *Gartner Says Consolidation to Continue Across the European IT Industry in 2003* available at http://www4.gartner.com/5_about/press_releases/2002_11/pr20021105b.jsp

⁶⁵ FCC merger review is based on its authority to review the transfer of licenses, which requires the transfer to be in the public interest, convenience and necessity. See Communications Act of 1934, 47 U.S.C. as amended by the Telecommunications Act of 1996, ss.214 & 310.

⁶⁶ See for example European Community Merger Regulation (ECMR) Council Regulation No. 4064/89 of 21 September 1990, Art. 3 as amended by Council Regulation No 1310/97 of 30 June 1997 and Commission Regulation (EC) No 447/98 of 1 March 1998.

Figure 5.1 Who approves mergers?



Source: ITU Trends in Telecommunication Reform 2002 - Effective Regulation

5.7 For the most part, the steps taken and factors considered in merger reviews are similar to that undertaken in the identification of dominance. In general the steps involve:

- defining the relevant market
- identifying market participants
- evaluating whether a merger is likely to substantially harm or reduce competition
- evaluating whether there are likely efficiencies arising from the merger to offset likely anti-competitive effects

5.8 Merger reviews are forward-looking, taking into account expected or foreseeable market developments over the course of a reasonable period. In the area of telecommunications, however, the speed with which technology can provide alternative products or services is an important aspect to consider when reviewing telecommunications mergers. The creation of new substitutes may widen the market appreciably in the future, resulting in the diminishing of a merged entity's market power.

5.2.1 Substantially harm or reduce competition

5.9 Competition authorities usually look at the following factors to determine the likelihood of a merger substantially harming or reducing competition:

- Market shares and market concentration;
- The likelihood that the merger would enable the merged company to significantly and sustainably increase profits either unilaterally or through coordinated interaction;
- The extent to which alternative entry into the market is likely and effective;
- The dynamic characteristics of the market, including growth, innovation and product differentiation.

The analytical process used by the Australian Competition and Consumer Commission (ACCC) in merger reviews provides an illustration of how similar factors are applied (Figure 5.2).

5.10 High market share is usually the determinative factor in telecommunications merger reviews. Its use, however, has been questioned by some experts who cite the constant threat of competitors that may be able to leapfrog the technology or network of the dominant firm allowing them to capture large market share

Box 5.1 – The Telia/Telenor Merger

On 13 October 1999, the European Commission approved the merger of Swedish operator, Telia AB and Norwegian operator, Telenor AS into a new company jointly controlled by the Swedish and Norwegian governments.

Identifying the wide range of operations Telia and Telenor were involved in, the European Commission found that the strong position of the merged entity in capacity markets and its control over local loop networks would allow it to discriminate against their competitors in favour of its ISP business.

In its deliberation, the Commission also emphasized the strong likelihood that the merged entity would adopt various bundling strategies aimed at leveraging its strong position in one area to strengthen its overall position through its ability to offer a package of services such as voice, fast-Internet access digital pay TV and digital interactive services.

Note: although the merger was conditionally approved, the parties later abandoned it.

Source: Case COMP/M.1439, Telia/Telenor, European Commission decision of 13 October 1999 declaring a concentration to be compatible with the common market and the EEA agreement

rapidly⁶⁷. Furthermore, in a fast changing industry, high market shares may also be a transitory reward for successful innovation and high risks in the required investment.

5.2.2 Vertical mergers

5.11 Because vertical mergers typically involve firms operating at different but complementary levels in the supply chain, vertical integration is generally deemed to yield efficiencies rather than a lessening of competition. As such, most competition authorities distinguish between horizontal and vertical mergers, usually adopting a more lenient approach to the latter⁶⁸. Nevertheless, with a number of telecommunications services being provided on a vertical chain, vertical mergers raise competition concerns when the resulting merger gives the merged firm the ability and incentive to foreclose competition in a related upstream or downstream market. Typically vertical foreclosure effects are likely to arise when a dominant firm excludes market access into to the related market or leverages its market position into related markets. Examples of exclusionary practices include the refusal to supply essential facilities or discrimination, while examples of leveraging include tied sales and bundling and cross-subsidization (Box 5.1).

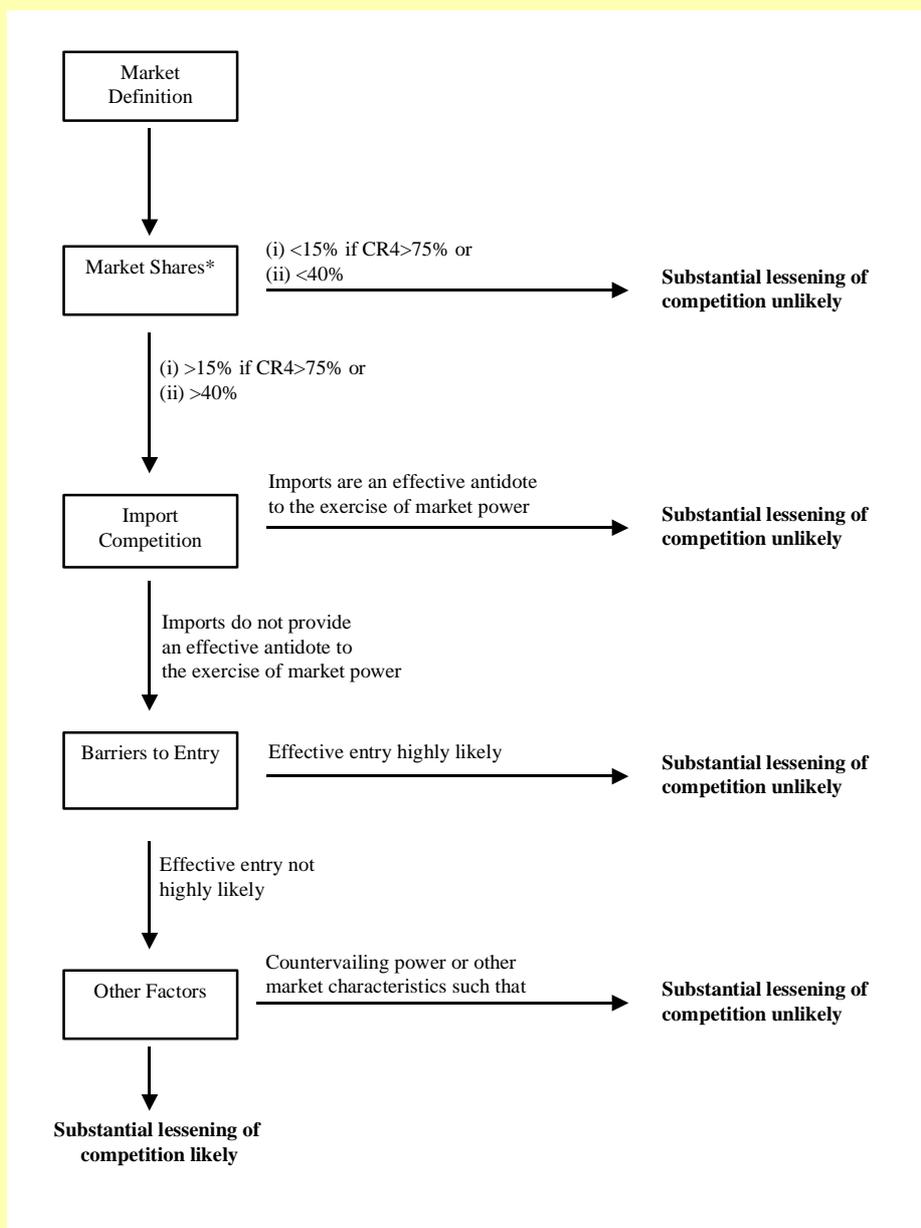
5.12 The development of a layered global market for electronic services has added another dimension to competition law concerns of vertical foreclosure resulting from mergers⁶⁹. Mergers between companies at different layers have attracted scrutiny, especially when it involves a dominant firm that controls essential facilities in any of the layers. For example, in approving the AOL/Time-Warner merger described in section 3.1.1 above, the FCC imposed a condition of mandatory interconnection to AOL's IM service in the event that advances in IM technology permitted new multimedia applications to be delivered by the technology. This condition largely reflected the FCC's concern that AOL's domination of the present market for IM services would translate into an extension of that dominance into future markets for advanced IM services, leveraging on Time-Warner's dominance in the upstream market for multimedia content.

⁶⁷ On this question, see Davis S. Evans & Richard Schmalensee, "*Some economic aspects of antitrust analysis in dynamically competitive industries*", a paper prepared for the National Bureau of Economic Research Conference on Innovation Policy and the Economy, Washington DC, April 17, 2001, available at www.nber.org/papers/w8268

⁶⁸ See for example, US Department of Justice Non-Horizontal Merger Guidelines, originally section 4 of the *U.S. Department of Justice Merger Guidelines, June 14, 1984*. "By definition, non-horizontal mergers involve firms that do not operate in the same market. It necessarily follows that such mergers produce no immediate change in the level of concentration in any relevant market as defined in Section 2 of these Guidelines."

⁶⁹ For detailed discussion see Gide Loyrette Nouel (November 2001), *Competition Assessment of Vertical Mergers and Vertical Agreements in the New Economy*, Final Report available at http://europa.eu.int/comm/enterprise/library/lib-competition/doc/merger_agreement_summary.pdf

Figure 5.2 Analytical Process used by the Australian Competition and Consumer Commission (ACCC)



*Note**: If the merger results in a post-merger combined market share of the four (or fewer) largest firms (CR4) of 75% or more and the merged firm will supply at least 15% of the relevant market, the ACCC will give further consideration to the merger. In any event, if the merged firm will supply more than 40% of the Market, the ACC will give further consideration to the merger.

Source: ACCC Merger Guidelines (June 1999) available at http://www.accc.gov.au/pubs/publications/business_general/mergers_and_acquisitions/mergerguide.pdf

5.2.3 Public benefit and efficiencies

5.13 Some merger reviews conclude with a consideration of the likely efficiencies resulting from proposed mergers that may be sufficient to offset the anti-competitive harm posed, for example, by preventing price increases in the market. The larger the risk of adverse competitive effects the larger the

Box 5.2: The FCC’s Public Interest Standard

In its order approving the 1998 merger of MCI Communications Corp. and WorldCom, Inc., the FCC outlined the differences between its public interest standard and DoJ’s antitrust standard:

The FCC examines not only the potential effect of the merger on competition, but also the balance of other potential benefits and harms to the public.

While the FCC’s analysis of competitive effects is “informed” by antitrust principles, it is not “governed” by them.

In practice, FCC’s reviews are not antitrust reviews. Rather, in strict terms, they are proceedings under the Communications Act to transfer wireless licenses and facilities authorizations from existing companies to the newly merged entity. Whereas concern about the impact on competition is the sole focus of antitrust reviews, the FCC applies its much broader “public interest” standard under the Communications Act. This involves considering a whole host of factors—including, among other things, consumer welfare, service quality, broadband deployment or the promotion of facilities-based networks—to determine whether, on balance, a merger would benefit the public.

Source: US Case Study on competition policy in telecommunications, at www.itu.int/competition

gains realized from efficiencies must be. In mergers involving telecommunications operators, efficiencies resulting from the merger should be shown to be otherwise unavailable through just interconnection⁷⁰.

5.14 While the evaluation of the competitive effects of a merger is often the basis of a review, it is not the only standard. In the United States, the FCC applies a much broader “public interest” standard in reviewing mergers, allowing it to go beyond an examination of the competition aspects of the transaction (Box 5.2). Most competition authorities, however, apply the consideration of public benefit as an exemption, approving mergers that would otherwise have been disallowed⁷¹.

5.3 Merger Approval

5.15 The powers available to competition authorities in resolving merger cases are similar to those available to them when remedying anti-competitive behaviour. Over and above the outright prohibition or dissolution of the merger, competition authorities can resort to imposing certain conditions in approving the merger.

5.16 The partial divestiture of certain assets or operations of the merged company is generally the preferred remedy, requiring less regulatory oversight in the long run. Where merger reviews have been undertaken by telecommunications regulators, as illustrated by FCC reviews in the United States, the potential for greater use of behavioural remedies is presented. Where public policy favours industry consolidation, behavioural remedies, such as the imposition of a market share ceiling, have been applied as an alternative to divestment. The SK Telecom/Shinsegi Telecom merger review in Korea provides an example of such a remedy (Box 5.3).

5.17 In some cases, the conditions attached to merger approvals act as regulatory stopgaps, effectively regulating the behaviour of the merged entity where no prior regulatory obligation exists. Occasionally, these conditions are subsequently adopted as industry wide ex ante regulatory obligations. For example, an obligation to provide unbundled local loop to competitors was introduced as a condition for the approval of

⁷⁰ *Network Effects in Telecommunications Mergers - MCI/WorldCom Merger: Protecting the future of the Internet*, Address by Constance K. Robinson before the Practising Law Institute, California, August 23, 1999 available at <http://www.usdoj.gov/atr/public/speeches/3889.pdf>.

⁷¹ See for example, Australian Competition and Consumer Commission Merger Guidelines (June 1999), pp.66-72. Public benefit here includes: economic development, industrial rationalization resulting in the more efficient allocation of resources, expansion of employment, industrial harmony, the development of import replacements, growth in export markets and protection of the environment.

Box 5.3 – SK Telekom/Shinsegi Telecom merger

Following the economic crisis in 1997 the Korean mobile industry underwent a period of consolidation with five mobile operators merging into three within a three-year period. In December 1999, the largest market operator, SK Telecom, initiated a merger with Shinsegi Telecom by acquiring a controlling share of stakes in Shinsegi Telecom. Under the Telecommunication Business Law in Korea, the merger of mobile operators is subject to approval by the Ministry of Information and Communication (MIC), in consultation with Korea Fair Trade Commission (KFTC), Korea's competition authority. This proposal was approved in April 2000 by the KFTC, subject to the condition that the total market share of the merger entity be reduced to below 50 per cent by June 2001. In addition, the volume of mobile handsets SK Telecom would be allowed to procure from its subsidiary was limited to 1.2 million sets over a period of five years (2000-2005).

At the end of June 2001, SK Telecom (Shinsegi Telecom included) satisfied the KFTC's conditions by reducing its share of subscribers—partly accomplishing this by not engaging in active marketing in what is a fast-growing market—to 49.7 per cent at the end of June 2001, enabling its merger and acquisition (M&A) with Shinsegi Telecom. On 14 January 2002, the Ministry of Information and Communication gave its final approval of the merger with 13 attached conditions including the opening of the company's wireless Internet network to competitors, and equal network access rights to content providers and ISPs (Internet service providers). SK Telecom has since proceeded to regain market share at an increasing rate.

Source: White Paper 2000, Ministry of Information and Communication, South Korea, 2000.12; IT industry Outlook of Korea 2002, Korea Information Society Development Institute, 2002 at: <http://www.mic.go.kr/>.

the Telia/Telenor merger, a year before the European Commission issued the recommendation for local loop unbundling in all member states⁷².

6 Conclusion

6.1 This paper has presented information to form the basis of a discussion on a number of issues related to competition policy in telecommunications. The convergence of competition law and sector-specific regulation in telecommunications is increasing with the adoption of competition law concepts, such as market definition and dominance, and principles, such as an essential facilities doctrine and non-discrimination, in the established telecommunications-specific regulatory framework. An understanding of how and where these two regimes have merged will provide the context in which a discussion on competition policy in telecommunications can take place.

6.2 Particular attention has been drawn to the importance market definition and dominance plays in competition policy, notably, through highlighting the particular set of factors such an analysis requires in the context of telecommunications as well as through contrasting the difference in approach taken in competition law and telecommunications-specific regulation. The way markets are defined and dominance identified can be critical to resolving a number of issues relating to obstacles to competition, such as in the case of mobile interconnection. A greater orientation towards a competition law analysis of market definition and dominance may provide the key to identifying obstacles to competition for the application of subsequent ex-ante telecommunications regulation.

6.3 The adoption of a competition law focus on dominance, reflected in asymmetrical regulation and regulatory forbearance, has also resulted in the need for the application of substantive competition law principles that can be applied in unregulated telecommunications markets or in cases where no dominant operator has been identified under telecommunications-specific regulation. Mobile markets and markets for the provision of Internet services have been especially prone to anti-competitive behaviour. As markets

⁷² See European Commission Decision, Declaring a concentration to be compatible with the common market and the EEA Agreement, Telia/Telenor, Case No IV/M.1439, Regulation (EEC) No 4064/89, (September 1998) and Commission Recommendation on Unbundled Access to the Local Loop, C(2000)1059, 26 April 2000.

grow more competitive and deregulation progresses, these safeguards will have to be extended further, requiring the need for greater involvement by the competition authority or an increased focus on the application of substantive competition law principles by telecommunications regulators.

6.4 The convergence of competition law and telecommunications-specific regulation has also raised issues regarding the overlap between the two regimes and the approaches taken in some countries to reconcile them. This, in particular, has been reflected in institutional arrangements and adjustments that have been made between competition authorities and telecommunications regulators.

6.5 The emergence of the Internet and the corresponding need for access has required a variety of approaches designed to facilitate competition at the local and international level. Some of these competition policy responses have been described in this paper in order to highlight the variety of approaches available and the competition law conceptual basis for some of these possible responses. Although it is unlikely that competition law will totally replace the need for telecommunications-specific regulation, the example of the application of EU competition rules as the basis of regulatory decisions on the local access level as well as the regulatory forbearance approach used to foster inter-modal competition highlight the possibility of a greater reliance on competition law and a further trend towards greater deregulation. Similarly, the application of a competition law approach in resolving issues involving international Internet access is highlighted as a possibility provided initiatives to establish a global competition policy framework progress.

6.6 Finally, continuing consolidation in the telecommunications industry, despite the economic slowdown, has also focused attention on the management of mergers, acquisitions and other corporate alliances under competition law. The merger review process has been examined with a view towards highlighting the particular set of considerations that have proven to be peculiar to telecommunications mergers.

APPENDIX

WTO REFERENCE PAPER

Scope

The following are definitions and principles on the regulatory framework for the basic telecommunications services.

Definitions

Users mean service consumers and service suppliers.

Essential facilities mean facilities of a public telecommunications transport network or service that

- (a) are exclusively or predominantly provided by a single or limited number of suppliers; and
- (b) cannot feasibly be economically or technically substituted in order to provide a service.

A major supplier is a supplier which has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of:

- (a) control over essential facilities; or
- (b) use of its position in the market.

1. Competitive safeguards

1.1 Prevention of anti-competitive practices in telecommunications

Appropriate measures shall be maintained for the purpose of preventing suppliers who, alone or together, are a major supplier from engaging in or continuing anti-competitive practices.

1.2 Safeguards

The anti-competitive practices referred to above shall include in particular:

- (a) engaging in anti-competitive cross-subsidization;
- (b) using information obtained from competitors with anti-competitive results; and
- (c) not making available to other services suppliers on a timely basis technical information about essential facilities and commercially relevant information which are necessary for them to provide services.

2. Interconnection

2.1 This section applies to linking with suppliers providing public telecommunications transport networks or services in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where specific commitments are undertaken.

2.2 Interconnection to be ensured

Interconnection with a major supplier will be ensured at any technically feasible point in the network. Such interconnection is provided.

- (a) under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;

- (b) in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided; and
- (c) upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.

2.3 Public availability of the procedures for interconnection negotiations

The procedures applicable for interconnection to a major supplier will be made publicly available.

2.4 Transparency of interconnection arrangements

It is ensured that a major supplier will make publicly available either its interconnection agreements or a reference interconnection offer.

2.5 Interconnection: dispute settlement

A service supplier requesting interconnection with a major supplier will have recourse, either:

- (a) at any time or
- (b) after a reasonable period of time which has been made publicly known

to an independent domestic body, which may be a regulatory body as referred to in paragraph 5 below, to resolve disputes regarding appropriate terms, conditions and rates for interconnection within a reasonable period of time, to the extent that these have not been established previously.

3. Universal service

Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive *per se*, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.

4. Public availability of licensing criteria

Where a licence is required, the following will be made publicly available:

- (a) all the licensing criteria and the period of time normally required to reach a decision concerning an application for a licence and
- (b) the terms and conditions of individual licences.

The reasons for the denial of a licence will be made known to the applicant upon request.

5. Independent regulators

The regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants.

6. Allocation and use of scarce resources

Any procedures for the allocation and use of scarce resources, including frequencies, numbers and rights of way, will be carried out in an objective, timely, transparent and non-discriminatory manner. The current state of allocated frequency bands will be made publicly available, but detailed identification of frequencies allocated for specific government uses is not required.