Submission to the Productivity Commission's Inquiry into Telecommunications Competition Regulation

From
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Overview

In this submission to the Productivity Commission's Inquiry into Telecommunications Competition Regulation I address three points:

1. Draft Recommendation 8.1, 8.2 and 8.3 on the criteria for the declaration of telecommunications services
2. Draft recommendation 9.7 on the usefulness of class action access arbitrations
3. Draft recommendation 10.1 on whether access prices should be set so as to generate revenue across a facility's regulated services as a whole to meet the efficient long-run costs of providing access to those services.

Draft Recommendation 8.1, 8.2 and 8.3

The Productivity Commission, *Telecommunications Competition Regulation - Draft Report* (2001) Commonwealth of Australia p.8.24 has tentatively recommended that Part XIC be brought in line with Part III by recommending the following criteria:
"(a) the telecommunications service is of significance to the national economy and
1) for a service used for originating and terminating calls, there are substantial entry barriers to new entrants arising from network effects or large sunk costs; or
2) for a service not used for originating and terminating calls, entry to the market of a second provider of the service would not be economically feasible;
(b) no substitute service is available under reasonable conditions that could be used by an access seeker;
(c) competition in downstream markets is insufficient to prevent the provider of the service from exercising substantial market power;
(d) addressing the denial of access, or the terms and conditions of access, to the service concerned is likely to improve economic efficiency significantly; and
(e) access (or increased access) to the service would not be contrary to the public interest."

Although draft recommendation 8.1 refers to the current objects clause in Part XIC being broadened, the effect of draft recommendation 8.3 may be to narrow the range of services

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that could potentially be declared. This narrowing of services is more in-keeping with the Hilmer report and the underlying theory of essential facilities that focused on bottleneck elements, rather than the current LTIE test which is much broader and allows the declaration of services that would not fit the definition of a bottleneck element[1]. The current Australian approach is also broader than the American 'necessary' and 'impair' standard under 47 USC §251(d)(2), which is discussed below.

My comments are aimed at addressing

- the effect of the recommendation on promoting innovation (otherwise called dynamic efficiency);
- commenting on the use of "overall economic efficiency" in draft recommendation 8.1;
- observing that the economic issues being raised by the Draft Report are similar to those raised in relation to the Microsoft litigation[2] in the US and that the vast literature on this issue may be of assistance; and
- explaining the US approach to declaration or 'unbundling' of telecommunications services on the basis that it may provide a reference point.

Predicting Innovation

Innovation may be defined as something new or different, possessing some aspect of novelty. However, in the world of business, innovation involves a further step and may be defined in the following ways:
"we define creativity as the generation of ideas and alternatives, and innovation as the transformation of those ideas and alternatives into useful applications that lead to change and improvement[3]" or
"a process by which new information emerges and is concretized in a product that meets human needs[4]".
It may be thought of as the new product or service that results from research or an idea. Innovation may be small or great, evolutionary or revolutionary. It can be a completely new product, or incrementally cost reducing or functionality increasing processes.

The traditional starting point for predicting innovation is to refer to Schumpeter's *Capitalism, Socialism and Democracy*[5]. Schumpeter argued that capitalism could only be plausible by delivering real economic growth and that the source of that growth was

[1] Corones, Competition Law in Australia (1999) 2nd ed LBC Information Services p.443.
[2] *United States v Microsoft* 56 F.3d 1448 (DC Cir. 1995), *United States v Microsoft* 147 F.3d 935 (DC Cir. 1998), *United States v Microsoft* (Findings of Fact) 84 F.Supp. 2d 9 (DC Cir. 1999) and *United States v Microsoft* 87 F.Supp. 2d 30 (DC Cir. 2000).
[3] Carr and Johansson (1995). *Best Practices in Reengineering*, McGraw-Hill, Inc.,
[4] Nonaka, and Kenney, Towards a New Theory of Innovation Management: A Case Study Comparing Canon Inc. and Apple Computer Inc., (1991) 8 *Journal of Engineering and Technology Management* pp. 67-83.
[5] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers.

innovation[6]. Schumpeter links new methods of production, new commodities, new forms of organization, new sources of supply and new markets to prosperity.

If innovation is the way for capitalism to survive then it is important to create conditions that foster innovation. Schumpeter's thesis was that large monopolists were in the best position to innovate because they possessed human and financial capital, innovation required the bearing of risk which size allowed but also because a monopolist was better able to control the market to protect its investments[7].

If the embracing of monopolies is concerning, Schumpeter saw innovation as alleviating those concerns by disciplining the monopolist that did not heed the warnings of change. Schumpeter directs attention to how capitalism creates and destroys market structures rather that how capitalism administers such structures. The focus is away from price competition and to "the competition from the new commodity, the new technology the new source of supply, the new type of organization … - competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives. This kind of competition is … the powerful lever that in the long run expands output and brings down prices[8]".

Schumpeter's claims have been subject to theoretical and statistical analysis[9]. Some studies suggested that pure competition was more likely to engender innovation than pure monopoly, others suggested that oligopolies were superior to both, while yet others found support for Schumpeter's faith in monopolists being the main innovators.

In summary, the monopolist although having the resources and economies of scale needed for research may have less incentive to innovate because they face little competition but may do so when faced with a threat to their monopoly. A highly competitive market may mean that competition is based almost exclusively on price so that little funds are available for innovation. Alternatively, where competition exists because of product differentiation as well as price, firms engaged in rivalry may seek means to not only reduce costs but to obtain a competitive advantage through greater functionality. However, product differentiation may be achieved through marketing rather than riskier research and development. The nature of the product and the maturity of the market will effect whether a firm tries to build brand loyalty or a better mousetrap[10].

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[6] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers p.68 and 83.
[7] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers pp.87-106.
[8] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers p.84-85.
[9] For an overview of that research see Kamien and Schwartz, *Market Structure and Innovation* (1982) Cambridge, Baldwin and Scott, *Market Structure and Technological Change* (1987) Harwood Academic, Scherer, Schumpeter and Plausible Capitalism (1992) Vol.XXX *Journal of Economic Literature* 1416 and OECD Economic Department Working Papers, *Innovation, Firm Size and Market Structure: Schumpeterian Hypotheses and Some New Themes – Working Paper No.161* (1996) OECD.
[10] Scherer, Antitrust, Efficiency and Progress (1987) 62 *N.Y.U.L. Rev*. 998 at 1010-1012.

The link between innovation and market structure alters depending on a number of variables such as:

- Type of product and industry
- Strength of first mover advantage (market control provided from innovating cannot be easily eroded)
- Degree of uncertainty associated with the research
- Innovation opportunities that arise from outside the firm (knowledge or consumer demand)
- Ability to free-ride on others innovations (the spill-over effect)
- The ability of new entrants to drive the economic profits from the innovation to zero
- Technological opportunity (potential for innovation)

The conclusions reached by the literature appear to be that "the links between market structure, innovation and economic welfare are extremely complex[11]" and "there seems to be little empirical support for the view that large firm size or high concentration are factors generally conducive to a higher level of innovative activity. … there is probably no general trade-off between competition policy and technical progress, although in some R&D-intensive industries a high level of concentration may be inevitable[12]". The conclusions seem to be that some market power aids in innovation but that competition promotes innovation better than monopoly[13]. In addition the threat of innovation from competitors also pushes the incumbent to legitimately innovate to be able to compete and keep customers[14]. Society as a whole may have no preference for one firm over another provided it gets the innovation.

Whilst economics seeks to determine cause and effect relationships that can guide future action, the nature of discovery and innovation is often effected by serendipity or accident. Some of the most important discoveries such as gravity, nuclear fission and DNA involved an element of serendipity. Equally, innovations like Velcro, Du Pont's Teflon, NutraSweet and 3M's Post-it notes involved serendipity[15]. To this must be added the unknown quantities of human creativity, resourcefulness, and entrepreneurial skill[16].

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[11] Scherer, Schumpeter and Plausible Capitalism (1992) Vol.XXX *Journal of Economic Literature* 1416 at 1421.

[12] OECD Economic Department Working Papers, *Innovation, Firm Size and Market Structure: Schumpeterian Hypotheses and Some New Themes – Working Paper No.161* (1996) OECD p.33. See also Jorde and Teece, *Antitrust, Innovation and Competitiveness* (1992) Oxford University Press p.6.

[13] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers pp.87-106, Arrow, Economic Welfare and the Allocation of Resources for Invention in *The Rate and Direction of Inventive Activity* (1962) and Scherer, Antitrust, Efficiency and Progress (1987) 62 *N.Y.U.L. Rev*. 998.

[14] In *United States v Microsoft* (Findings of Fact) 84 F.Supp. 2d 9 (DC Cir. 1999) at 43 it was acknowledged that Microsoft's Internet Explorer could not be technologically inferior to Netscape Explorer and capture market share.

[15] Roberts, *Serendipity – Accidental Discoveries in Science* (1989) John Wiley & Sons and Kohn, *Fortune or Failure – Missed Opportunities and Chance Discoveries* (1989) Basil Blackwell.

[16] Boudreaux and Folsom, Microsoft and Standard Oil: Radical Lessons for Antitrust Reform (1999) XLIV (3) *The Antitrust Bulletin* 555 at 572.

Some of the revolutionary type innovations that change, create or destroy a market may not be predictable. Indeed it is the nature of such innovation that it takes the world by surprise. It involves a paradigm shift in which the old way of doing something is replaced by the new[17].

Despite the uncertainty, innovation is the single most important factor in the growth of real output for the industrialized world[18]. If that is so, then it has repercussions for what is meant by overall efficiency.

"Overall Economic Efficiency" and Promoting Consumer Welfare

The goal of regulation is consumer welfare which may be examined by balancing three forms of efficiency:

1. Dynamic efficiency - Firms have the appropriate incentives to invest, innovate, improve the range and quality of services, increase productivity and lower costs through time;
2. Productive efficiency - Firms have the appropriate incentives to produce services at least cost, and production activities are distributed between firms such that industry-wide costs are minimized; and
3. Allocative efficiency - Firms employ resources to produce goods and services that provide the maximum benefit to society. An important condition for allocative efficiency is that prices for services at least reflect the value society places on the next best alternative use of the resources used to produce the service.

The evaluation of each form of efficiency leads to consider whether resources are being used in the most efficient manner from a societal perspective, will costs be reduced, will prices decline, will productivity improve or will competitors be excluded, and will innovation be encouraged or inhibited[19].

The characteristics of the telecommunications industry (economies of scale, scope, network effects and tipping[20]) mean that there is a need to consider the long run consequences of actions even though current economic theory focuses on short run static

[17] Kuhn, *The Structure of Scientific Revolutions* (1962) University of Chicago Press.
[18] Scherer, Antitrust, Efficiency and Progress (1987) 62 *N.Y.U.L. Rev*. 998 at 1018 and Brodley, The Economic Goals of Antitrust: Efficiency, Consumer Welfare and Technological Progress (1987) 62 *N.Y.U.L. Rev*. 1020 at 1026 and 1031.
[19] Dratler, Microsoft as an Antitrust Target: IBM in Software (1996) 25 *Sw. U. L. Rev*. 671 at 682 and Lopatka and Page, Antitrust on Internet Time: Microsoft and the Law and Economics of Exclusion (1999) 7 *S. Ct. Econ. Rev*. 157 at 190.
[20] The existence of network effects gives rise to the phenomenon of "tipping" whereby a product creates a large enough base of users that new users choose that product to be able to take advantage of the positive network externalities. The product in favor of which the market tips becomes the market standard and other complementary products must be compatible with it. See Lemley and McGowan, Legal Implications of Network Economic Effects (1998) 86 *Calif. L. Rev.* 479 and Shapiro and Varian, *Information Rules* (1999) Harvard Business School Press.

models[21]. As telecommunications markets can be moving targets it is necessary to consider dynamic competition including strategies to control the next market standard[22].

If Schumpeter is correct and innovation is "the powerful lever that in the long run expands output and brings down prices[23]" making it more important than short run price competition then competition law, including access regimes, should focus on promoting innovation.

The above analysis on predicting innovation demonstrates that regulators do not have access to precise economic theory on what market structure best facilities innovation.

Innovation is usually driven by incentives. In software cases, such as Microsoft, the incentive may be provided by intellectual property rights (IP rights). The existence of IP rights means that there will nearly always be a trade off between the welfare of the producer and the consumers welfare as consumers pay higher per unit costs to give the producer the incentive to invest in innovation in the first place[24].

In the Telecommunication's industry the incentive to innovate may be driven by network effects that allow the innovative firm to reap the rewards of the innovation through a market tipping to its standard and therefore generating positive network externalities that attract more customers. Network effects may raise prices but they also generate benefits. Obtaining those benefits gives rise to a trade-off similar to the IP rights example, consumers pay higher per unit costs to give the producer the incentive to invest in innovation in the first place. Equally, the prospect of being the firm that benefits from network effects may drive competitors to innovate to overcome a bottleneck.

An access declaration removes the incentive for firms to 'race' to set a new standard and obtain the benefits of IP rights or network effects as they can let a competitor incur the costs in winning the race and then obtain access.

Whilst the above discussion shows that there are reasons to value innovation (dynamic efficiency) above other efficiencies, should a regulator adopt an overriding goal or attempt to balance the forms of efficiency defined above. Regulation in high-technology markets like software and telecommunications brings this conundrum to the fore because a long run dynamic analysis implicates all forms of efficiencies over time, rather than focusing on allocative and productive efficiency at one point in time. The task of regulatory law under a static analysis is to improve allocative efficiency without impairing productive efficiency so greatly that consumers are worse off[25]. The Microsoft

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[21] Brodley, The Economic Goals of Antitrust: Efficiency, Consumer Welfare and Technological Progress (1987) 62 *N.Y.U.L. Rev.* 1020 at 1021 and Jorde and Teece, *Antitrust, Innovation and Competitiveness* (1992) Oxford University Press p.4.

[22] Rubinfeld, Antitrust Enforcement in Dynamic Network Industries (1998) XLIII (3-4) *The Antitrust Bulletin* 859 at 873.

[23] Schumpeter, *Capitalism, Socialism and Democracy* (1950) 3rd ed Harper & Brothers Publishers p.84-85.

[24] McGowan, Innovation, Uncertainty and Stability in Antitrust Law p.40 at *Antitrust, Technology and Intellectual Property Conference*, March 2, 2001, University of California, Berkeley.

[25] Bork, *The Antitrust Paradox* (1993 Rev. Ed.) The Free Press p.91.

litigation is about this very issue. It raises the issue in terms of whether preventing the use of tying in software products will promote price competition in the short run at the loss of innovation in the long run[26].

There are at least 3 ways of looking at "overall economic efficiency", or going beyond that label to ask how the three forms of efficiency defined above should be weighed, balanced and traded off against each other.

One answer to the conundrum is to adopt the goal of total efficiency gain[27]. Allocative efficiency can be reduced if total efficiency is higher. In effect allowing firms to have some market power (which IP rights may grant and network effects suggest), that is higher productive efficiency, because it may also foster dynamic efficiency/innovation thus increasing allocative efficiency in the long run. This may also mean reducing allocative efficiency in the short run which may be criticized as trading off certain benefits now for speculative benefits in the future as innovations may not eventuate or they may not benefit consumers as much as initially thought.

A second response is that quantitatively speaking dynamic efficiency is more important than productive efficiency which in turn is more important than allocative efficiency[28]. On the basis of the discussion on predicting innovation it may be suggested that, regulators should strive to maintain a diversity of competitors and keep entry barriers from being raised unnecessarily[29]. Innovation should be a key concern and practices which unnecessarily inhibit it should be struck down.

The third approach is based on the view that innovations have been more rapidly deployed in telecommunications networks the more competitive the market in which those networks operated so that, "regulators should adopt a rebuttable presumption against claims that competition will conflict with technological advancement in the telecommunications industry[30]". This would mean starting with the presumption that access should be allowed if it will increase competition and only if the access provider can show that access would harm innovation.

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[26] See Testimony of Microsoft expert, Dr James Allchin 27 January 1999. Available at http://www.microsoft.com/presspass/trial/mswitness/allchin/allchin.asp and summarized at http://www.microsoft.com/presspass/trial/jan99/01-27allchin.asp , Lopatka and Page, Microsoft, monopolization, and network externalities: some uses and abuses of economic theory in antitrust decision making (1995) Summer, *The Antitrust Bulletin* 317, Eisenach and Lenard (eds), *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace* (1999) Kluwer Academic Publishers, Piriano, An Antitrust Remedy for Monopoly Leveraging by Electronic Networks (1998) 93 *Nw. U. L. Rev.* 1

[27] McGowan, Innovation, Uncertainty and Stability in Antitrust Law p.39 at *Antitrust, Technology and Intellectual Property Conference*, March 2, 2001, University of California, Berkeley. McGowan's focus is the Microsoft litigation and software rather than telecommunications but his observations are nonetheless valid.

[28] Scherer, Antitrust, Efficiency and Progress (1987) 62 *N.Y.U.L. Rev.* 998 at 1018.

[29] Scherer, Antitrust, Efficiency and Progress (1987) 62 *N.Y.U.L. Rev.* 998 at 1019.

[30] Shelanski, Competition and Deployment of New Technology in US Telecommunications (2000) *U. Chi Legal F.* 85 at 115.

Allowing some market power means not punishing 'bigness' per se, but alone it does not define what actions are acceptable or unacceptable. This is because allowing a firm to take advantage of network effects may promote innovation in the larger firm that has market power, but it may also harm innovation from a potential competitor. Indeed the entire efficiency calculus is not one of simple addition and subtraction.

The weighing of potential sources of innovation may mean that any evaluation of benefits and detriments should consider "whether such benefits can be obtained as well, or nearly as well, through other means posing fewer dangers to competition[31]." This examination of less restrictive means allows short term consumer welfare through price competition to still be considered and a tradeoff between longer run innovation and short term price cuts attempted.

Access overcomes problems with economies of scale and scope, and network effects that created 'natural' monopolies in the past. However, an efficiency analysis must also take into account dynamic efficiency and the potential effects of access for consumer welfare in the future.

The US Approach

The US legislation 47 USC §251(d)(2) provides that the FCC in determining what network elements should be made available for purposes of unbundled access under 47 USC §251(c)(3), the Commission must consider if:
(A) access to such network elements as are proprietary in nature is necessary; and
(B) the failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer.

In *AT&T Corporation v Iowa Utilities Board* 525 U.S. 366 (1999) the Supreme Court struck down the FCC's first attempt at rules for unbundled access. Breyer J concurring in part and dissenting in part observed on the unbundling rules[32]:
"The Act expresses [the unbundling] requirement in general terms, reflecting congressional uncertainty about the extent to which compelled use of an incumbent's facilities will prove necessary to avoid waste. Will wireless technology or cable television lines, for example, permit the efficient provision of local telephone service without the use of existing telephone lines that now run house to house?

Despite the empirical uncertainties, the basic congressional objective is reasonably clear. The unbundling requirement seeks to facilitate the introduction of competition where practical, *i.e.*, without inordinate waste. ... And although the provision describing which elements must be unbundled does not explicitly refer to the analogous "essential facilities" doctrine (an antitrust doctrine that this Court has never adopted), the Act, in my view, does impose related limits upon the FCC's power to compel unbundling. In particular, I believe that, given the Act's basic purpose, it requires a convincing

[31] Areeda, Antitrust Law as Industrial Policy: Should Judges and Juries Make It? in Jorde and Teece (eds), *Antitrust, Innovation and Competitiveness* (1992) Oxford University Press p.39.
[32] *AT&T Corporation v Iowa Utilities Board* 525 U.S. 366 (1999) at 428-431.

explanation of why facilities should be shared (or "unbundled") where a new entrant could compete effectively without the facility, or where practical alternatives to that facility are available. § 251(d)(2); …

… The fact that compulsory sharing can have significant administrative and social costs inconsistent with the Act's purposes suggests [some limits]. Even the simplest kind of compelled sharing, say, requiring a railroad to share bridges, tunnels, or track, means that someone must oversee the terms and conditions of that sharing. Moreover, a sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor. … Nor can one guarantee that firms will undertake the investment necessary to produce complex technological innovations knowing that any competitive advantage deriving from those innovations will be dissipated by the sharing requirement. … The greater the administrative burden, for example, the more the need for complex proceedings, the very existence of which means delay, which in turn can impede the entry into long-distance markets that the Act foresees.

Nor are any added costs imposed by more extensive unbundling requirements necessarily offset by the added potential for competition. Increased sharing by itself does not automatically mean increased competition. It is in the *un*shared, not in the shared, portions of the enterprise that meaningful competition would likely emerge. Rules that force firms to share *every* resource or element of a business would create not competition, but pervasive regulation, for the regulators, not the marketplace, would set the relevant terms.

The upshot, in my view, is that the statute's unbundling requirements, read in light of the Act's basic purposes, require balance. Regulatory rules that go too far, expanding the definition of what must be shared beyond that which is essential to that which merely proves advantageous to a single competitor, risk costs that, in terms of the Act's objectives, may make the game not worth the candle."

In *Re Implementation of the Local Competition Provisions of the Telecommunications Act 1996 Third Report and Order* 15 FCCR 3696 (1999) the FCC re-issued rules in compliance with the Court's decision, stating
"II. EXECUTIVE SUMMARY
Section 251(d)(2)'s "Necessary" and "Impair" Standards. Section 251(d)(2)(A)'s "necessary" standard is a stricter standard that applies to proprietary network elements. Section 251(d)(2)(B)'s "impair" standard applies to non-proprietary network elements. Applying a stricter standard to proprietary network elements is consistent with Congress' intention to spur innovation and investment by both incumbent and competitive LECs. In applying these standards, we look first to what is occurring in the marketplace today.

Necessary. A proprietary network element is "necessary" within the meaning of section 251(d)(2)(A) if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third party supplier, lack of access to that element would, as a

practical, economic, and operational matter, *preclude* a requesting carrier from providing the services it seeks to offer. There are limited circumstances under which we may unbundle proprietary information or functionalities even if those elements are not strictly "necessary," as long as the "impair" standard is met. These circumstances are: (1) where an incumbent LEC, for the primary purpose of causing a particular network to be evaluated under the stricter "necessary" standard in order to avoid its unbundling obligation, implements only a minor modification to the network element to make the element proprietary; (2) where an incumbent LEC cannot demonstrate that the information or functionality that it claims is proprietary differentiates its services from its competitors' services, or is otherwise competitively significant; or (3) where lack of access to the proprietary element would jeopardize the goal of the 1996 Act to bring rapid competition to the greatest number of consumers.

Impair. The incumbent LECs' failure to provide access to a non-proprietary network element "impairs" a requesting carrier within the meaning of section 251(d)(2)(B) if, taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative from a third-party supplier, lack of access to that element *materially diminishes* a requesting carrier's ability to provide the services it seeks to offer. In order to evaluate whether there are alternatives actually available to the requesting carrier as a practical, economic, and operational matter, we look at the totality of the circumstances associated with using an alternative. In particular, our "impair" analysis considers the cost, timeliness, quality, ubiquity, and operational issues associated with use of the alternative.

Goals of the Act. We also interpret the obligations imposed in section 251(d)(2) within the larger statutory framework of the 1996 Act. Congress apparently contemplated that we would consider additional factors by directing the Commission, in section 251(d)(2), to "consider *at a minimum*" the "necessary" and "impair" standards. The Supreme Court decision requires us to apply a limiting standard "rationally related to the goals of the Act." Accordingly, in addition to the factors set forth above, we may consider the following factors:

* Rapid Introduction of Competition in All Markets. We may consider whether the availability of an unbundled network element is likely to encourage requesting carriers to enter the local market in order to serve the greatest number of consumers as rapidly as possible.

* Promotion of Facilities-Based Competition, Investment and Innovation. We may consider the extent to which the unbundling obligations we adopt will encourage the development of facilities-based competition by competitive LECs, and innovation and investment by both incumbent LECs and competitive LECs, especially for the provision of advanced services.

* Reduced Regulation. We may consider the extent to which we can encourage investment and innovation by reducing regulatory obligations to provide access to

network elements, as alternatives to the incumbent LECs' network elements become available in the future.

* Certainty in the Market. We may consider how the unbundling obligations we adopt can provide the uniformity and predictability that new entrants and fledgling competitors need to develop national and regional business plans. We also consider whether the rules we adopt provide financial markets with reasonable certainty so that carriers can attract the capital they need to execute their business plans to serve the greatest number of consumers.

* Administrative Practicality. We may consider whether the unbundling obligations we adopt are administratively practical to apply.

* The Order recognizes that rapid changes in technology, competition, and the economic conditions of the telecommunications market will require a reevaluation of the national unbundling rules periodically. In order to encourage a reasonable period of certainty in the market, the Commission expects to reexamine the national list of unbundled network elements in three years".

Observations

1. The importance of innovation in promoting consumer welfare warrants its express inclusion as a factor to be considered in determining if a service should be declared. Innovation could be implied by references to economic efficiency and public interest but the importance of the concept warrants more explicit recognition. It may be worthwhile considering the concept being stated as the promotion of innovation by both access seekers and access providers, so as to ensure that innovation is considered from both perspectives.

2. The concept of overall efficiency is vague as shown by at least three possible approaches to the concept. It is not necessary to specify an approach in the legislation but the ACCC would benefit from guidance on how the three forms of efficiency could be weighed or considered. As different access issues may impact more or less on dynamic efficiency the simple inclusion of innovation as a factor to be considered may be sufficient. If the Commission is able to determine that dynamic efficiency is more important to consumer welfare than other forms of efficiency then it may recommend that it be given more weight.

3. The use of originating and terminating calls as a criteria in recommendation 8.3(a) is subject to becoming outdated due to convergence and so the concepts of substantial barriers to entry and economically feasible alone may be more technology neutral.

4. The recommendation is a much needed tightening of the legislation and is in-keeping with developments in at least one other jurisdiction, the US.

Class Actions for Access Disputes

Draft recommendation 9.7

The Commission recommends that there should be the capacity for a group of access seekers to lodge a joint notification of dispute and proceed to class arbitration rather than a series of bilateral negotiations. [chapter 9, page 9.29]

This issue may be approached by referring to the experience with class actions. The reasoning behind class actions has been explained as:

"The class-action device was designed as an exception to the usual rule that litigation is conducted by and on behalf of the individual named parties only. ... the class-action device saves the resources of both the courts and the parties by permitting an issue potentially affecting every [class member] to be litigated in an economical fashion[33]"

The class action allows individuals with small losses to band together so that the cost of the lawsuit does not outweigh the expected recovery, it may expedite a case by allowing for it to be determined with many others that are similar so that the plaintiff or defendant has a more timely result, and it may also foster an equality of resources by allowing plaintiffs to combine resources to be able to match a well-resourced corporate defendant. However, class action litigation is more complex and can make outcomes more uncertain. In some situations the aggregation of claims can create procedural issues that would make a trial difficult to manage or unworkable.

A class arbitration in the access setting would seem to potentially combine the advantages of the class action without many of the risks. Firstly, it should be determined whether an access seeker who is not part of the class arbitration is bound. Presumably they would be unless there circumstances changed the underlying economics of the access decision. Access seekers are far more identifiable as compared to class action plaintiffs as they must be licensed. As a result it may be worth considering whether non-class members can intervene after a class arbitration is to be commenced. The desirability of this turns on how the arbitration is to be conducted. If there is only one representative then non-class members should be able to intervene, but if each party is able to make submissions the process could become cumbersome and unworkable.

For the efficiency gains to be at their highest it would be desirable to have all access seekers represented by one person/entity. This would mean the ACCC could receive one combined submission on the access sought. The difficulty with such a requirement is that the class may lack cohesion so that there are a myriad of different issues to be decided or the class may have internal conflicts of interest. The best way to deal with a lack of cohesion or conflicts of interest is to narrow the issue to be arbitrated. In other words the class arbitration can only be of common questions. Once some vital questions have been determined the ACCC may find that the rest can be negotiated rather than arbitrated.

If a 'common issue' is chosen then a class arbitration could allow for quicker resolution of disputes, an equalizing of resources on the basis that the access provider controls a

[33] *General Tel. Co. of Southwest v. Falcon*, 457 U.S. 147 (1982) at 155 and *Califano* v. *Yamasaki*, 442 U.S. 682 (1979) at 700-701

bottleneck which by definition equates to market power (this ignores that the access seeker may be a large firm in a different sector of the telecommunications industry or the economy), the saving of resources for access providers and seekers who can decide an issue once and it should not unduly complicate the proceedings.

Access pricing would seem to be a key issue which if resolved could expedite access and reduce disputes. However, for that to be the case the access pricing mechanisms need to be sufficiently definite that it can be treated as a common issue. This means that the access pricing criteria need to be resolved for procedural improvements such as class arbitrations to be effective.

The issues raised by class actions are well known in the US and may provide guidance for the detailed drafting of legislation[34]. In addition Part IVA of the *Federal Court of Australia Act* 1976 (Cth) provides guidance as to the procedure for Australian class actions.

The Pricing Denominator for Efficient Long Run Costs

Draft recommendation 10.1

The Commission recommends that the following principles be legislated for telecommunications. Access prices should:

• generate revenue across a facility's regulated services as a whole that is at least sufficient to meet the efficient long-run costs of providing access to these services, including a return on investment commensurate with the risks involved;

• not be so far above costs as to detract significantly from efficient use of services and investment in related markets;

• encourage multi-part tariffs and allow price discrimination when it aids efficiency; and

• not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, unless the cost of providing access to other operators is higher. [chapter 10, pages 10.23–4]

My comments relate only to the principle "generate revenue across a facility's regulated services as a whole that is at least sufficient to meet the efficient long-run costs of providing access to these services, including a return on investment commensurate with the risks involved" and then only be referring to the US Supreme Court's takings jurisprudence (similar to the Australian Constitution s.51(xxxi)) in relation to a category of cases dealing with rate setting.

In the current context it is possible to take a step back before going forward and to observe that the appropriate denominator for determining if sufficient revenue is generated could mean choosing between a particular service, a part of the access provider's business, such as the local exchange, or the access provider's entire business. The narrower the definition the smaller the base for recovering costs, whilst a broad definition of the relevant base would mean a much greater base for recovering costs. The

[34] For example RAND Institute for Civil Justice, *Class Action Dilemmas* (2000) RAND and Federal Judicial Center, *Manual for Complex Litigation* (1995 3rd ed.). Available at http://www.fjc.gov/CIVILLIT/mcl/mcl.html

use of "a facility's regulated services as a whole" would thus seem to be an attempt to broaden the base for recovering costs.

The case of *Federal Power Commission v Hope Natural Gas Co.* 320 U.S. 591 (1944) stands for the proposition that when an administrative bodies order is challenged in Court as being a taking:

1. the order is viewed in its entirety
2. the result reached rather than the method employed is to be examined
3. the impact of the rate order rather the theory behind it is what counts

"If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry … is at an end[35]".

The *Hope Natural Gas* approach was then affirmed in *Duquesne Light Co. v Barasch* 488 U.S. 299 (1989)[36]. Rehnquist CJ observed that "The economic judgments required in rate proceedings are often hopelessly complex and do not admit of a single correct result. The Constitution is not designed to arbitrate these economic niceties. … The Constitution protects the utility from the net effect of the rate order on its property[37]". Scalia J, concurring, pointed to the need to focus on the consequences of what a regulator does rather than the techniques that it uses[38].

The *Duquesne* and *Hope* requirements were considered in a telecommunications context in *Alenco Communications Inc v FCC*[39]. The regulated firm is entitled to recover costs plus a reasonable return on investment, where the return is compared to similar firms facing corresponding risks[40], but the scope of the regulated assets may be the entire firm or just one line of business[41].

A question has been raised over the applicability of the *Duquesne Light Co. v. Barasch* reasoning to private companies, such as the ILECs, as the Court was dealing with regulated monopolies in that case, where losses from one area could be offset by altering other rates[42]. This issue seems to grow out of the Court's finding that the net effect of the

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[35] *Federal Power Commission v Hope Natural Gas Co.* 320 U.S. 591 (1944) at 602.
[36] *Duquesne Light Co. v Barasch* 488 U.S. 299 (1989) at 310 and 314.
[37] *Duquesne Light Co. v Barasch* 488 U.S. 299 (1989) at 314.
[38] *Duquesne Light Co. v Barasch* 488 U.S. 299 (1989) at 317.
[39] *Alenco Communications Inc v FCC* 201 F.3d 608 (5th Cir. 2000) at 624 stating that "Petitioners … must show that a regulation will "jeopardize the financial integrity of the companies, either by leaving them insufficient operating capital or by impeding their ability to raise future capital," or they must demonstrate that the reduced subsidies "are inadequate to compensate current equity holders for the risk associated with their investments under a modified prudent investment scheme." … It is not enough that a party merely speculates that a government action will cause it harm. Rather, a taking must "'necessarily' result from the regulatory actions."
[40] Baumol and Merrill, Does the Constitution Require That We Kill the Competitive Goose? Pricing Local Phone Services to Rivals, (1998) 71 *N.Y.U.L. Rev.* 1122 at 1129.
[41] Compare *Baltimore & Ohio Railroad Co. v US* 345 U.S. 146 (1953) with *Brooks-Scanlon v. Railroad Comm'n* 251 U.S. 396 (1920).
[42] *MCI Telecommunications Corp. v GTE Northwest Inc* 41 F.Supp. 2d 1157 (D. Or. 1999) at 1170 and Merrill, The Fifteenth National Regulatory Conference Competition in the Local Telecommunications Market: Delivering on the Promises of Telecommunications Act of 1996 - Deregulatory Takings and Breach of the Regulatory Contract (1997) 4 *Rich. J. L. & Tech.* 2 at 40-41.

regulations should be looked at as a loss in one area may be offset by gains elsewhere[43]. In a deregulated environment the regulator may lose the ability to engineer such subsidies and so looking at the net effect is problematic. The idea of implicit subsidies becomes anachronistic in a competitive environment[44] but the requirement to look at the net effects may not be rendered obsolete because explicit subsidies, such as universal service[45], may exist or new profit making opportunities may be granted[46]. The regulator's reduced ability to require firms to engage in subsidizing behavior can still be captured by a net effects test, but the offsetting credits for the Court to consider are diminished. The focus becomes whether the 'countervailing factors' do compensate or not. Implicit subsidies may not compensate sufficiently in a competitive environment because aggressive competitors in the market in which the subsidy is drawn (prices are increased above economic cost to support some other activity) can price below the ILEC and engage in 'cream-skimming'[47].

This discussion is aimed at questioning the usefulness of an approach that looks at the net effect of regulation. It is therefore applicable to the Commission's recommendation and raises the question of what is meant by 'regulated services'. If those services involve competition then there is a risk that the Commission's recommendation will promote cross-subsidies and an uneven playing field for access providers who are expected to make up losses in one area through profits from another area so that the latter area may attract unneeded competition as the access provider must price above a competitive level to support its regulatory responsibilities in the former area.

It is possible that this issue will be addressed by the US Supreme Court early next year in *Verizon Communications v FCC*[48] which is an appeal of the Eighth Circuit's decision in

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[43] *Duquesne Light Co. v Barasch* 488 U.S. 299 (1989) at 314 stating that "inconsistencies in one aspect of the methodology have no constitutional effect on the utility's property if they are compensated by countervailing factors in some other aspect".

[44] It may also lead to claims of anti-competitive conduct like predatory pricing or monopolization.

[45] 47 U.S.C. §254(b)(4) requires all providers of telecommunications services to contribute to universal service so that ILECs who actually provide universal service will receive offsetting subsidies from CLECs that do not.

[46] In the US the BOCs are allowed to provide long distance within there local call region if they meet conditions:

1. s.271(c)(1)(A) (Track A) or s.271(c)(1)(B) (Track B)
2. 14 points in competitive checklist s.271(c)(2)(B)
3. s.272 requirements requiring separate affiliate and nondiscrimination

Track A – entered into access and interconnection agreement with CLEC for residential and business subscribers

Track B – a statement of terms on which BOC offers to provide access and interconnection which a State Commission has approved (if no competition). This is inapplicable to Australia as structural separation did not exist before or after deregulation.

[47] Williams, Deregulatory Takings and Breach of the Regulatory Contract: A Comment (1996) 71 *N.Y.U.L. Rev.* 1000 at 1001.

[48] the US Supreme Court granted the writs of certiorari on 22 January 2001 in:
00-511) VERIZON COMMUNICATIONS V. FCC, ET AL.
00-555) WorldCOM, INC., ET AL. V. VERIZON COMMUNICATIONS
00-587) FCC, ET AL. V. IOWA UTILITIES BD., ET AL.
00-590) AT&T CORP. V. IOWA UTILITIES BD., ET AL.
00-602) GEN. COMMUNICATIONS, INC. V. IOWA UTILITIES BD., ET AL.

Iowa Utilities Board v. Federal Communications Commission[49] that deals with whether the court of appeals erred in holding that neither the Takings Clause nor the Telecommunications Act of 1996 requires incorporation of an incumbent local exchange carrier's "historical" costs into the rates that it may charge new entrants for access to its network elements.

The main lesson from the US case law is that the use of a "net effects" test requires a clear definition of what it means to be regulated, and if there is any competition in that area there may be an undesirable skewing of investment and pricing decisions that harm consumer welfare.

[49] *Iowa Utilities Board v. Federal Communications Commission*, 219 F.3d 744 (8th Cir. 2000).