Telstra

Telstra Corporation Limited

Productivity Commission's Draft Report on Telecommunications Competition Regulation

Final Submission

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Telstra

Contents

1. Executive summary

Far-reaching reform of the current telecommunications regulatory regime is indispensable if Australians are to have access to a world class telecommunications system. The current arrangements, far from advancing Australia's international competitiveness, hinder investment, stifle the development of competition and encourage rent-seeking rather than innovation. A new start is needed if the opportunities technological change creates for Australia to be a world leader in this industry are to be fully and effectively exploited.

Telstra sees the review by the Productivity Commission ("Commission") of telecommunications as an excellent chance to start the far-reaching reforms that are so clearly called for. Telstra strongly welcomes the Commission's Draft Report. In Telstra's view, the broad directions set out in that Report are fully consistent with the reforms that the current arrangements need. The completion of the Commission's work should set the framework for substantial legislative change.

1.1 The challenge ahead

Telstra's starting point in considering the issues involved in this Inquiry is the challenge that sustained technological change creates for Australia's telecommunications system. As a geographically vast country with a highly dispersed population, located at a great distance from its trading partners, Australia depends more heavily than other countries do on the quality, efficiency and innovativeness of its telecommunications system. As new technologies expand the benefits telecommunications can bring, Australians most of all stand to gain from an environment that promotes their prompt adoption and widespread use.

Looking to the three to five years ahead, it is the process of convergence that offers the greatest opportunities in this respect. "Convergence", viewed from a technological perspective, refers to the process by which services that were previously supported over distinct communications infrastructures are integrated around a common, high capacity, digital platform. This brings with it the blurring of boundaries between once-distinct services and the entry of suppliers from previously separate markets into a now combining and necessarily wider market-place.

From the consumer perspective, convergence brings clear gains. Reliance on a common infrastructure allows efficiencies to be obtained, reducing costs and charges. That infrastructure's high capacity allows new services to be offered, extending the range of content and applications that consumers can access. At the same time, the merging of markets brings previously separated suppliers into head-on competition – with all the benefits that competition yields.

These gains from convergence cannot occur, however, without sustained investment. Even in the near term, Telstra's Customer Access Network ("CAN") needs very substantial renewal if it is to be fully capable of supporting widespread use of DSL. The current copper pair network is, in many places, close to its use-by date, having been put into place twenty or more years ago.

The design approach embodied in the CAN – reliance on extensive and frequent maintenance, as an alternative to more intensive use of capital – is out-dated, and inconsistent with minimisation of long-term costs. At the same time, that design approach makes it difficult, if not impossible, for Telstra to achieve the quality of service targets it would otherwise hope to meet. Only a sustained program of investment in the CAN will fully address and resolve the problems the legacy CAN creates.

The investment needs of convergence do not end there, however. Already, it is becoming clear that DSL is only an interim solution to meeting emerging broadband requirements. Particularly for fully interactive broadband applications, higher levels of capacity, suitable for symmetrical uses, are needed. A variety of approaches, including fibre to the home and a range of wireless technologies, are currently being considered for meeting these capacity requirements. Given the uncertainties to which they are subject, and the importance of factors that are not readily reducible to technical considerations narrowly defined, engineering studies alone will not be able to determine which of these alternative options is best adapted to Australia's needs. Rather, it is only through investment in, and competition between, these options that the solutions which most fully meet consumer requirements can be identified.

This means that the investment task ahead will inevitably be subject to great uncertainty – both technological and commercial. There is a sharp contrast here with the environment in which the current CAN assets were deployed – an environment of relative technological simplicity and of the commercial certainty that monopoly brings. While the change itself is welcome, its implications for the task ahead need to be recognised.

This is all the more the case as the wider environment for investment in telecommunications has shifted so markedly over the course of the Commission's current inquiry. World-wide, investors are far more cautious about the prospects for the information technology and telecommunications industries than they were some twelve to eighteen months ago. The fact that the investments being made in these industries are subject to considerable uncertainties is well understood. As a result, firms in these industries will face far greater constraints and pressures on capital resources than they previously did.

The tensions this creates are likely to be particularly acute in Australia. The reality is that both sides of politics have, in recent years, steadily and significantly heightened the standard and range of telecommunications service that is required to be made available on essentially non-commercial terms. In a period of tight financial constraints, meeting this ever-higher hurdle inevitably cuts into the capital that Telstra can devote to other, commercially justifiable, uses.

1.2 The impact of access regulation

It is against this backdrop that the impact of regulation needs to be assessed. By adding uncertainty to what is already a highly uncertain environment, the current regulation of access discourages investment both by Telstra and by Telstra's competitors. At the same time, the bias – in the direction of trying to set ever lower charges for access seekers, regardless of costs – that has emerged in ACCC decision-making distorts price signals and expectations in ways inimical to efficient investment and to technological change.

Added uncertainty is the inevitable result of the processes the ACCC has adopted. As has been evident in the case of the local call resale service, the ACCC does not feel obliged to maintain even the most elementary level of consistency between its decisions. Thus, in its decisions with respect to charges for originating and terminating PSTN service, the ACCC allocated to the local call service responsibility for recovering a substantial share of the access deficit. Then, however, in its decisions with respect to charges for wholesale local calls, it has sought to set charges in such a way that no such recovery could occur. Where the resulting shortfall is to be recouped has been left entirely unexplained.

This lack of any internally consistent, rigorous approach by the ACCC to decisions such as these is, in Telstra's view, unjustifiable. It is no defence to say, as the ACCC does in its most recent submission to the Commission, that overall Telstra's PSTN is profitable. Even putting aside the absurdities evident in the manner in which the ACCC has reached this assessment, the ACCC's argument seems to imply that so long as Telstra is not "going under", access pricing decisions can be taken without proper regard to their consequences for Telstra's ability to recover costs and finance investments.

The reality is that at the margin, Telstra must allocate its funds among competing uses in the light not of the short term or immediate profitability of the grouping of services they support, but of their return over the lifetime of the assets being acquired. Even if it were the case that Telstra's PSTN was "profitable" in some economically relevant sense today, it is the future profitability of the service that counts; and the ever strengthening competition in this area, combined with continued heavy-handed regulatory intervention, hardly makes investment in the CAN attractive when compared to alternatives. No less importantly, the fact remains that the ACCC's decisions, by setting access charges below cost, cannot but distort and depress investment in regulated assets, as the return on that investment to Telstra is reduced below the return it yields to consumers and service suppliers as a whole. It is these impacts at the margin, rather than aggregate comparisons of costs and revenues, that are economically relevant.

It is not only Telstra's investment that is adversely affected. As Telstra has emphasised on numerous occasions, the lack of investment in PSTN facilities by entrants is a striking feature of the Australian situation. Indeed, the ACCC itself seems to admit as much, for while it states, in its most recent submission to the Commission's Inquiry, that there has been entrant investment, the categories it lists as being those in which investment has occurred do not include fixed customer access. Vague, largely unsubstantiated and unaudited, references by the ACCC to investments in such loosely specified categories such as "fibre optics" cannot alter the fact that the locations at which entrants are connecting to and interworking with Telstra's PSTN at a local facilities basis are in metropolitan areas, and most largely in CBDs. Telstra substantiated this in the data it provided, including on porting requests and local number portability, in its initial submission to this Inquiry; matters have not changed since that time.

The costs this imposes in terms of foregone competition are obvious. It is also important to note that this creates a self-perpetuating burden of regulation: regulatory distortions prevent new facilities from being committed to the market; the fact that there are not such facilities is then used by the ACCC as being grounds for continuing to regulate. The ACCC's reluctance to remove the obligation on Telstra to provide local call resale service even in areas where Cable &

Wireless Optus could readily activate its HFC is a striking example of this type of behaviour. The result is to perpetuate the costs of regulatory failure, which may, and often are, far in excess of the costs any market failure might impose.

1.3 The way forward: access pricing

While it is Telstra's view that the outcomes set out above arise from the manner in which the ACCC has approached its task, Telstra accepts that the current legislative framework provides the scope for this type of behaviour because of its lack of clear direction, notably with respect to pricing. For this reason, Telstra strongly supports the Commission's recommendation that clearer pricing principles be written into the legislative framework. Telstra believes it is especially important that these principles ensure recovery of the costs service provision entails. Additionally, they must assure that cost recovery in ways that are predictable and not too burdensome in terms of implementation.

In Telstra's view, greater clarity and predictability in terms of pricing would go a very long way in improving the timeliness and overall effectiveness of the process of access regulation. The reality is that the delays that have characterised this process have largely arisen from the inordinate time the ACCC has taken to even set out its approach to pricing declared services – with the determination of pricing principles for local call termination on so-called non-dominant networks, for example, taking over two years. Had the pricing framework been more tightly defined in legislation, delays such as this one could not have occurred.

Improving the process for considering undertakings is also crucial to improving the efficacy of the access process. As matters stand, the legislation provides very little guidance, if any, to the ACCC in its assessment of undertakings. Moreover, the ACCC has little incentive to accept undertakings – and indeed has not done so, either here or, excepting some special circumstances, under the provisions of Part IIIA – as accepting an undertaking limits its decision-making discretion.

Telstra believes that this situation can only be addressed by more strictly defining the conditions under which the ACCC can reject an access undertaking, and ensuring that any such rejection is subject to full merits review.

In saying this, Telstra notes the ACCC's argument that its decision in the access pricing area should not be subject to merits review. In Telstra's view, the ACCC's record of decision-making in the area of access pricing speaks for itself: it is a record of inconsistency and substantive unpredictability; of clear errors in calculations; of analysis that does not withstand close scrutiny. Given this record, it is not surprising that the ACCC would want merits review abolished; but that would merely further reduce the disciplines under which this process is conducted.

Even putting the ACCC's specific performance aside, the reality is that the decisions at issue are complex and involve very large stakes. Natural justice, and the assurance that outcomes will ultimately be economically efficient, requires that there be scope for careful, impartial review. This, in Telstra's view, is now widely recognised internationally, with all the countries of the

European Union being required, under the terms of the European Commission's Framework Directive, to provide for full review on the merits. Equally, full review has been the reality for many years in the United States and is also provided for in the telecommunications Bill being put to the New Zealand Parliament.

Additionally, limiting merits review in the context of telecommunications would increase the gap between the telecommunications regime and the economy-wide provisions of Part IIIA of the Act. Such a change would consequently be manifestly inconsistent with the stated goal of successive governments of progressively moving the telecommunications regime towards its economy-wide counterpart.

Fundamentally, merits review is an essential element in maintaining the accountability of administrative bodies such as the ACCC. This has been recognised by Professor Fels, Chairman of the ACCC, in rebutting claims that the ACCC is not accountable. In recent public statements, Professor Fels has claimed, *inter alia*, that:

> "[a]s to accountability to the general public no agency in Australia has been of more accessible, open and accountable…"[1]

As evidence of this, Professor Fels then says:

> "… the ACCC cannot obtain a fine, injunction or court order without proving its case to the Federal Court … **This is a high form of accountability** … ACCC decisions to authorise anti-competitive practices are accountable. They must be published and can be, and often are, appealed against to the quasi-judicial Australian Competition Tribunal …"[2]

Confining or limiting this "high form of accountability" is, in Telstra's view, undesirable. Telstra therefore does not support the proposed legislative amendment that would restrict the material that could be considered in such reviews to material that has already been considered by the ACCC. This proposal, if enacted, would merely lengthen the current arbitral process, as it would impel the parties to put all the evidence that might ever be relevant to decision-making on the record; additionally, it would prevent the appellate body from accessing information that had only become available subsequent to the arbitral decision. It would therefore be both ineffectual in making for greater timeliness and inimical to efficient decision-making.

Overall, Telstra is convinced that the measures it has proposed – greater clarity in pricing principles, improved processes for assessing undertakings – would appropriately address concerns about timeliness without sacrificing the quality of the decisions ultimately taken.

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1 Fels, "No Agency more accountable than ACCC", *The Australian Financial Review*, 22 June 2001, (emphasis added).

2 Fels, "No Agency more accountable than ACCC", *The Australian Financial Review*, 22 June 2001, 83.

Additionally, Telstra believes that better case management would materially help in reducing the time and cost involved in resolving access disputes. Ultimately, the firms operating in this industry, and the consumers who rely on them for service, deserve a system that generates high-quality decisions that are consistent with sustained innovation and genuine competition. This is where the current arrangements fail; reducing the accountability of the regulators will only make matters worse.

1.4 Conduct regulation and Part XIB

The provisions of Part XIB are even more plainly in need of reform. Telstra does not believe that these provisions have ever had substantive justification. Experience since they were adopted, and especially in the most recent period, confirms the harm they cause.

The evolution of these provisions since their enactment seems essentially pathological. Although no case has actually been brought and determined under these provisions, they have been progressively strengthened, with constraints on their use by the ACCC being stripped away. As their "in terrorem" character has thus been strengthened, the ACCC has relied on them not as a means of law enforcement, but rather as a bargaining tool – a means of securing outcomes that it could not obtain through more transparent and accountable legal processes. Additionally and increasingly, the threat of proceedings in response to vague and untested complaints has been used by the ACCC as an element in its well-orchestrated publicity campaigns, with the seeming goal of passing public judgement on Telstra without needing to meet the constraints and hurdles that would be involved in genuine legal and administrative decision-making.

An examination of the cases investigated by the ACCC under Part XIB, including and perhaps especially in the most recent period, highlights a number of common features.

To begin with, the ACCC seems willing to consider and pursue complaints that on even a most superficial analysis lack any merit or foundation. In doing so, it both imposes considerable burdens on Telstra and encourages Telstra's rivals to rely on these provisions as a means of improving their bargaining position.

Secondly, in pursuing the complaints, the ACCC has consistently viewed the provisions as empowering it to protect competitors, rather than to protect competition. This is especially evident in the ACCC's manifest disregard for economic efficiency considerations in case after case:

- in the internet peering proceedings, forcing adoption of an industry model that was already obsolete and clearly vulnerable to free-riding;

- in the matter of ISDN Semi-Permanent Circuits ("SPCs"), perpetuating preferential pricing arrangements long after their efficiency rationale had disappeared;

- in the matter of Permitted Attachment Private Lines ("PAPLs"), seeking to perpetuate the use of a service for a purpose that was inconsistent with the efficient technical operation of the network;

- and most recently, in respect of COMindico, suggesting that Telstra was under an obligation to purchase termination services in a manner that was technically inefficient but supported an entrant's business case.

Thirdly and relatedly, in each instance, the ACCC seems to have given enormous weight to protecting ***existing*** interests, rather than to creating conditions under which new uses and users can most effectively develop. The ACCC seems to view the Part XIB provisions as a means of ensuring that current access seekers are never worse off, no matter what changes may have occurred in the environment in which they are working. In the SPC and PAPL matters, for example, the ACCC never even sought to provide an efficiency justification for the outcomes it sought—the goal, rather, was plainly that of insuring the complainants from the consequences of technological change. Inevitably, such an approach deters both Telstra and its rivals from being as prompt as possible in responding to the threats and opportunities the rapid development of technology creates. No less importantly, in so strongly protecting existing interests, it removes some of the competitive space that would otherwise be available to new forms of competition.

Fourthly, the ACCC has relied on Part XIB to achieve these outcomes as an alternative to the somewhat more transparent and accountable means available to it under Part XIC. Looked at closely, each of the cases pursued by the ACCC under the Part XIB powers could have been addressed within the framework of Part XIC. But however deficient Part XIC is, it would not have supported the sort of particularised manipulation of outcomes the ACCC was clearly seeking in the cases at issue: that is, the according of regulatory favours to specific players. Rather, under Part XIC, the ACCC would have been required to engage a process which to some degree involved the industry as a whole and which at least until now has been subject to appellate review. Reliance on "in terrorem" threats has clearly seemed a more attractive way of achieving the outcomes the ACCC has sought.

Overall, the current provisions are an open-ended license for abuse, with the ACCC being only too willing to rely on the discretion they provide. The changes made to these provisions since their first enactment have only aggravated matters in this respect. In effect, paradoxically, these changes have both strengthened the powers on which the ACCC could rely and simultaneously, reduced the ACCC's accountability for the use of those powers. More specifically, constraints of due process and sound administrative decision-making have been successively relaxed – for example, by allowing the ACCC an ever-freer hand in the specification of the behaviour being complained of. As a result, whatever need the ACCC might otherwise have had to clearly identify allegedly offending behaviour, and demonstrate the harm it would cause, has been effectively removed, allowing the ACCC to use the provisions not as an instrument for obtaining legal remedies but as a generalised weapon of "persuasion".

Telstra does not believe that this internationally quite unique situation is in any way consistent either with sound regulation or with the development of genuinely and sustainably competitive markets. Rather, there is no real need for provisions of this kind and they ought to be repealed.

In taking this view, Telstra notes that the ACCC itself sees recent decisions by Australian courts, and most notably the *Melway* decision by the High Court, as substantially strengthening section 46 of the *Trade Practices Act* 1974 (Cth). Repeal of Part XIB would be far from leaving firms in the telecommunications industry unprotected from anti-competitive behaviour. Rather, they could and would benefit from the protections the general competition law, and its active enforcement by the ACCC, provide to firms in the economy as a whole. At the same time, repeal would remove the rent-seeking and disregard for economic efficiency that has characterised the operation of the "competition notice" system.

1.5 Conclusions

In its 1994 submission to the *Review of Post-1997 Telecommunications Policy*, the Trade Practices Commission (as it then was) explicitly rejected the need for industry-specific regulation for telecommunications and indicated that such a regime would be a poor way of managing competitive outcomes in telecommunications. Such a regime was rejected for the reason that, *inter alia*, it would be difficult for the regulator to relax its controls over market outcomes. The Trade Practices Commission's submission, containing a signed foreword by its then Chairman, Professor Allan Fels, stated (at page 6) that:

> "[Industry-specific regulation] can distort the allocation of resources by creating unjustifiable disparities between industries; the close relation between the industry-specific regulatory authorities and the industries they regulate may lead to undue influences being exercised on regulatory outcomes; it may be difficult for these regulators to remove or relax unnecessary regulation if this reduces their ability to guide or control market outcomes; the industry-specific nature of the regime may reduce predictability by preventing or limiting the application of precedents derived from other industries ...".

Telstra agrees. Indeed, many of the Trade Practices Commission's predictions have proved to be chillingly accurate.

The current Inquiry provides an opportunity to set regulation of telecommunications on a more efficient and sustainable path. Telstra recognises that this encounters significant obstacles: having obtained very substantial powers, the ACCC is reluctant to see them better defined and disciplined; Telstra's rivals, having benefited from a system that allows and encourages rent-seeking, will cast change as pre-mature. Yet the reality is that without far-reaching reform, Australia's telecommunications industry will never make the transition to genuinely and effectively competitive markets: it will remain locked into a mode of infant firm protection that is as costly as it is ultimately self-perpetuating.

These are circumstances the Commission has often had to face in the past. Typically, they involved firms protected from international competition. Now, the focus of rent-seeking has shifted to regulated markets, and the kind of discretion to distribute favours that once

characterised decision-making with respect to tariffs and quotas is now most clearly found in the regulatory process. The current telecommunications regime, with provisions such as those found in Part XIB, takes this to an extreme.

Yet if there is an industry where such extensive and intrusive regulation seems undesirable it must surely be telecommunications. The process of convergence, and the rapid pace of technical change in telecommunications more generally, makes it impossible for regulators to act as "omniscient social planners", divining the direction in which markets should move and then mandating the associated outcomes. At the same time, as experience has shown time and again, rapid technological change creates conditions under which competition can flourish, and more surely than any government policy makes for the displacement of incumbents and the erosion of market power. Social planners, focussed on redistributing existing income towards their favoured constituents, can add little and take away a great deal from the benefits this dynamic of change creates.

Telstra does not believe that the current situation calls for a complete removal of industry-specific regulation. However, it does call for far better regulation than the Australian telecommunications system currently has. The proposals Telstra advances for reforming the current arrangements are, in Telstra's view, essential elements in providing an environment conducive to sustained investment, to effective competition and to durable consumer benefits.

2. Review context

Telstra provided the Commission with submissions in August 2000 and October 2000. In May 2001, in its initial response to the Commission's Draft Report, Telstra provided the Commission with material concerning investment safe-harbours, declaration criteria and pricing principles.

In this, its most recent submission, Telstra elaborates on the information presented in its earlier submissions, as well as providing fresh evidence to the Commission about the costs of the operation of the regulatory regime. Telstra expects to supplement this evidence with further material, which it will provide to the Commission in the coming month.

As Telstra has previously submitted,[3] the Commission should adopt a forward-looking approach and ensure that the benefits of a vigorously competitive telecommunications industry are fully achieved by recommending reforms that will position the industry to address the changes it will face from now until 2005.[4]

Telstra considers that, given economically efficient regulatory settings, ***the*** key feature of the Australian telecommunications environment in that time frame will be the convergence between telecommunications services and other services.

There are differing views about the definition of convergence[5] and the extent to which it is occurring, or is likely to occur, in different markets.[6] However, Telstra urges the Commission to

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3 Telstra, *Initial Submission on the Productivity Commission's Draft Report on Telecommunications Specific Competition Regulation*, 10 May 2001 (the "Third Submission"), 6.

4 In Telstra's view, it is appropriate to reconsider the telecommunications-specific competition regulatory regime in another four years. A longer time frame than this is clearly fraught with predictive dangers. Indeed, those dangers highlight that early take-up of the Commission's recommendations will also be important, as regulatory decisions made over the next 18 months or so are likely to remain in place for 5 years or more following their handing down. The impact of those regulatory decisions will therefore be felt in market conditions that cannot, with any certainty, be foreshadowed at this time.

5 In this submission, "convergence" refers to a situation whereby what were once distinct economic markets merge, or where firms that previously did not compete find themselves in the same (and perhaps new) market. Two products or firms can be said to belong "in the same market", if a price increase in one product above competitive levels would be rendered unprofitable by consumers shifting their demand to the other product, or by suppliers of the other product entering the first market, or by both.

6 See, for example, Longstaff, P H, "New Ways to Think About the Visions Called "Convergence": A Guide for Business and Public Policy", 2001 (available at: http://www.pirp.harvard.edu/pubs/pdf-blurb.asp?id=484>).

acknowledge the very real impact that convergence is having, and will continue to have, on the telecommunications industry. It is critical that policy settings are adjusted to ensure that regulatory distortions of this change process are kept to an absolute minimum.

This section provides Telstra's view of the forces driving change in the telecommunications industry over the next few years. The next section considers the implications these changes have for regulatory policy. Telstra would be happy to elaborate on the view it sets out, if the Commission would find this helpful.

2.1 The processes of convergence[7]

Convergence is affecting, albeit at different speeds and in different ways, several markets in which Telstra currently supplies services. For example:

- Convergence in the traditional broadcast media markets - bringing new entrants using communications technologies - has already occurred. Satellite, fixed-wireless (MMDS, LMDS) and HFC cable provision of broadcast television compete with traditional free-to-air broadcasters, and may indeed be displacing them.[8] This has brought new competing suppliers in broadcast transmission (Telstra, Austar and Optus in Australia) and in broadcasting (Foxtel, Austar and OptusVision in Australia).

- Mobile and traditional fixed line (narrowband[9]) voice communications markets are rapidly converging and it is likely that, within five years, these two services will be considered part of one market. Slightly lagging these developments is a merging of narrowband voice and data markets. Other things held constant, the supply of narrowband voice services will likely constrain the price of narrowband data services and *vice versa*, well within a decade.

- However, subsequent events are likely to overtake this convergence of voice communications markets. It is likely that, within 8 to 15 years, the emerging two-way broadband market will subsume both the narrowband voice and data markets.

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7 Aspects of this portion of Telstra's submission draw upon: Ralph, Little & Wong, "Regulation and the Convergence of the Telecommunication and Content Industries, Productivity Commission Conference on Industrial Organisation", Melbourne, Australia, July 1999.

8 The use of digital signals in free-to-air broadcasting may allow traditional broadcasters to offer multiple pay-television channels, thereby putting them on an even footing with these new competitors.

9 For the purposes of this submission, narrowband services refer to those with a bandwidth of 64kbs or less, and broadband to services with higher transfer rates.

Traditional broadcast media (most particularly satellite transmission) are increasingly being used as alternatives to traditional two-way communications media (wireline and fixed radio communication links).[10] New technologies are also commercially available in some places bringing new players into this market,[11] and further convergence is likely from third generation mobile telephony (within three years) and possibly other technologies.[12] These developments are bringing media giants (most notably those who broadcast via satellites), independent mobile carriers and a range of entirely new players into direct competition with telecommunications firms.[13]

The major driver of these processes is technological change.[14] In the past, communications services were largely defined by the technology used for their delivery. For example, the free-to-air broadcast industry was predominantly developed around wireless unidirectional broadcast technologies, while the telephony industry was based on centralised switches using circuit-switching technologies to create a continuous link between the two parties communicating. However, technological change is allowing the delivery of multiple communications services through multiple technologies.[15]

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10 For example, Optus have just announced a VSAT service that offers download rates of 52.5 Mb/s with a 153 Kb/s return path (Newsbytes News Network, 22 June 2001, http://www.totaltele.com/view.asp?ArticleID=41268&Pub=tt).

11 For example, Nokia's Rooftop wireless routers can be purchased off-the-shelf and operate in the unlicensed 2.4 GHz band. These allow the rapid deployment of high bandwidth (total capacity 12 Mb/s) scaleable wireless networks where sequential line of sight can be obtained - see http://www.wbs.nokia.com/index.html. Metricom's proprietary Ricochet service offers a lower bandwidth (128 Mb/s) solution on unlicensed spectrum in 13 major U.S. markets—see http://www.ricochet.com. In the UK, a similar symmetrical 1Mb/s service is available through Tele2 on licensed spectrum—see http://www.tele2.co.uk.

12 In order of likelihood: fixed two-way wireless (either via LMDS or MMDS), use of current broadcast spectrum in conjunction with digital rather than analogue signals and two-way broadband via LEO satellite.

13 Other, more speculative, forms of convergence were omitted for purposes of brevity.

14 It is important to stress that other factors such as deregulation of various service industries around the world have also played a role in changing the structure of the communications industry.

15 The technological changes that are driving the convergence process include: digitalisation, compression, increased computing power, increased storage capability, greater access and transport bandwidths, Very Large Scale Integration (the ability to develop complex VLSI to integrate technology using agreed standards to create the economies of scope and scale for mass

2.2 The impact of convergence on business planning

A major impact that the convergence process and the associated technological changes have had, and will continue to have, on the telecommunications industry is the dramatically increased levels of uncertainty it has brought to the telecommunications business and business planning.

Telecommunications carriers face at least four types of increased uncertainties as a result of convergence:

Demand uncertainty

The recent history of forecasting demand in telecommunications is a sequence of substantial failures, even absent convergence. Global experience in demand forecasting has shown that:

- underestimates are common: forecasts of mobile telephone penetration initially underestimated actual demand by several orders of magnitude, and even recent forecasts have been too pessimistic. The use and usage of internet services have been persistently underestimated;[16]

- overestimates are common: billions of dollars were lost on communications by low-earth-orbiting satellite systems, while video-on-demand, despite being backed by large US Bell telephone companies, all failed miserably through the 1980s and early 1990s. These failures were due to a lack of demand. For example, Iridium's costs did not unexpectedly increase; rather, the original business plan, which required modest numbers of subscribers at very high prices, was completely unsustainable. Only a fraction of the necessary subscribers were interested at those prices;[17][18] and

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market products), increasing appliance capabilities, development of standard digital application interfaces and developing presentation technologies.

16 For example, in 1997, Pioneer Consulting predicted 41.2 million internet hosts by 2002 (www.pioneerconsulting.com/p-report/sample/forecast2.html), but on 15 March 2001, the Internet Software Consortium concluded that there were more than 109 million internet hosts worldwide (http://www.ngi.org/trends/TrendsPR0102.txt). Other estimates put this figure at 100 million (Business Wire, 5 January 2001, 'Internet hosts reach 100 million worldwide').

17 J Schwarz, 'Iridium Files for Chapter 11', 14 August 1999, Washington Post. While Iridium's costs were higher than expected, the error margin here was small compared with the demand mis-forecasts.

18 Other examples of overestimates of demand include the Minitel and Prestel ventures of, respectively, France Telecom and British Telecom.

- demand forecasts have also routinely missed important markets. The most current example of this is online services where forecasts have been so far off-base that no-one is prepared to make strong statements about what content and applications will succeed or even how they will be priced.

The uncertainty that these failures reflect is made all the worse when different markets collide and demand in each is highly uncertain. Consider forecasting the interaction of these already poorly understood forces, for example in attempting to assess:

- how mobile broadband services will compete for fixed line broadband services (for example, DSL over copper cable); and

- how growth in the internet and demand for online services will impact on the demand for broadband services.

Technological uncertainty

As discussed above, convergence is characterised by the deployment of new technologies, with new investment occurring in new infrastructure (for example, HFC cable and electronic commerce platforms) and new uses for existing technologies (for example, the PSTN for the provision of xDSL - see section 2.4).

Firms investing in these technologies face considerable technology risks, in terms of choice of functionality, implementation and viability (with a real risk of stranded investment as the pace of technology development accelerates), often in the absence of any significant precedent or established standards.

These technology risks are well illustrated by Cable & Wireless Optus' significant under-estimation of the difficulties associated with providing telephony over HFC cable.[19] Similarly, fixed wireless has long been touted as a means of providing "the last mile" (that is, access to customers), but has so far proved disappointing, with no commercial roll-out to date of telecommunications services. Iridium's unhappy discovery that it was not going to be able to supply handsets that did not require a direct "line-of-sight" to its satellites played an important, if secondary, role in its demise. On the other hand, the completely unheralded two-way broadband delivered by spread spectrum is in commercial use in several places.

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[19] For example, Cable & Wireless Optus significantly underestimated: the difficulties in supplying adequate quality telephony over HFC cable; the costs associated with roll-out of the HFC network; the financial viability of the "telephony over HFC cable" model; and the degree of opposition of local councils and residents to the stringing of overhead cable.

Business model uncertainty

In many areas, uncertainty exists as to whether a profitable business model for a particular service exists and what it might be. For example, while it seems there is clear commercial potential in the internet, it is not clear precisely how firms will make money in this arena. Will the revenue model be based on the provision of access, transactions, content or advertising, or a combination of these? Globally, no consistent, profitable business model has yet emerged in many aspects of internet service and significant experimentation is occurring with new models appearing regularly.

Potential sources of competitive products and competitors

Finally, uncertainty also arises as to the potential sources of competitive products. Firms competing in converging markets may be less concerned about their traditional competitors (in Telstra's case, other carriers), than they are about integrated and/or specialised competitors from other industries (for example, media companies, software companies, computer hardware companies, service integrators and the financial services industry) and successful start-up companies in new markets (for example, some portals and content aggregators such as AOL).

In combination, these four types of uncertainty flowing from convergence generate significant market uncertainty. Furthermore, the above discussion underlines the deep uncertainty that exists about where profit opportunities lie in the emerging, but as yet poorly understood, converging markets. A firm that has invested substantially in the wrong parts of the industry may find that its asset is indeed used, but that the real profits accrue to a supplier somewhere else in the production chain.

2.3 Implications of convergence for regulation

In Telstra's view, the process of convergence carries four main implications for regulation:

- convergence reduces the need for regulatory intervention ("principle 1");
- convergence increases the scope for regulatory risk ("principle 2");
- convergence increases the risks of regulatory error ("principle 3"); and
- convergence demands a light-handed approach to regulation ("principle 4").

Each of these principles is briefly outlined below. If needed, then Telstra would welcome the opportunity to provide more detailed views to the Commission in order to elaborate more fully upon the reasoning behind these principles.

Concerning principle 1, convergence has the potential to substantially reduce the need for regulatory intervention by expanding the scope for the competitive supply of communications services. As a result, regulation of telecommunications infrastructure should be confined to

those parts of the industry that, absent regulation, would be vulnerable to market failure as a result of the exercise of substantial market power.

In relation to principle 2, convergence has the potential to increase substantially the level of regulatory risk borne by investors. As was noted in the Joint Industry submission to the Commission on the general access regime,[20] regulatory risk arises when the interaction of uncertainty and regulation changes the cost of financing the operations of a firm. Two distinct types of regulatory risk can be identified, namely: that arising as a result of the interaction between market uncertainty and regulation; and that arising as a result of the existence and exercise of regulatory discretion (that is, when the terms of the regulations themselves are unpredictable).

In respect of principle 3, as well as affecting the overall extent and incidence of regulatory risk, the convergence process significantly affects the costs to the community of over-reaching regulatory interventions in the competitive process. More specifically, with technologies and market boundaries undergoing rapid change, it becomes ever more difficult for regulators to distinguish vigorous competition from market failure. Convergence thus increases significantly the risks of Type I errors (where competitive behaviour is falsely condemned or market failure wrongly identified) occurring in the enforcement of competition policy in telecommunications. Moreover, the risk of Type I errors occurring is greater under convergence because regulatory ignorance is exceptionally large in the presence of the uncertainty generated by the present forms of convergence.[21]

Finally, concerning principle 4, Telstra has identified four main reasons for exercising caution in imposing regulation in new and / or converging markets:

(a) the newness of these markets means that regulators are unlikely to be better informed than the markets themselves about how to make the markets "work";

(b) the dynamism of the markets means that market forces are likely to act very quickly to push the market towards its competitive (or anti-competitive) equilibrium. In the short run, the regulator is unlikely to have sufficient information at hand to "correct" the market better than the market itself;

(c) the technology in these industries is often costly, complex and risky for investors. Thus, regulators may have to assume a lot (or assume a lot away) to understand the

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[20] Joint Industry Submission to the Productivity Commission's Review of the National Access Regime, 5 June 2001, 9.

[21] Firms too, of course, will be uncertain about the future environment and competitive dynamic under convergence. However, the regulator will still be less well-informed than market participants and, in Telstra's view, is likely to be significantly less so.

technology. This makes *a priori* reasoning about the merits of regulatory intervention particularly problematic; and

(d) when investment is ***new*** and entails risk, regulators ought, in principle, to be circumspect about intervening in the market, lest they prevent investment (which promotes competition) from working effectively.

2.4 Investment in the customer access network

In addition to the policy implications flowing from a convergent environment, convergence has significant practical ramifications for continued investment in telecommunications assets. More specifically, at the network layer, convergence relies on a broadband infrastructure. Parts of that infrastructure are now available, but providing widespread broadband access requires investments to substantially extend the current networks' reach. The customer access network ("CAN"), the existing copper pair network, is also regulated under Part XIC of the Act, via the declaration of both the unbundled loop service and PSTN originating and terminating access services.

Telstra recognises the need for continued regulation of CAN-type bottleneck services. However, convergence makes investment in the CAN an increasingly risky proposition. Furthermore, because convergence increases:

(a) the potential for alternative technologies to act as substitutes for traditional technologies (such as copper), so that the CAN and other technologies in a sense compete with each other; and

(b) the regulatory risks present in undertaking any investments in converging markets,

there is potentially less capital available, at economically efficient levels, with which to undertake investments in the CAN.

In addition, the uncertainty and risks for investment created by convergence highlight the need for access pricing principles that allow for the recovery of the efficiently-incurred costs of providing those types of services.[22] The investment task ahead should not be underestimated – it is substantial – as is evidenced by the following:

- more than 50 per cent of the copper pairs in the Australian CAN are over 20 years old, more than 30 per cent are over 30 years old and nearly 10 per cent predate 1950;

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[22] These issues are elaborated upon in detail in Part 6 of this submission. Telstra notes in passing that these issues are also the subject of consideration under the Commission's review of Part IIIA of the Trade Practices Act.

- much of the CAN reflects a design approach which is not adequate to the task. Its original design contains a number of important limitations: there is systematic under-provisioning, with 1.25 pairs or less being provisioned per dwelling unit (as against 4 to 6 in the United States); a severely tapered distribution cable and pipe, which restricts the ability both to rearrange existing capacity and to add new capacity; and extensive reliance on jointing points in the distribution network, at which "Fit and Fix" interventions occur, with the high frequency of those interventions increasing the likelihood of further faults occurring;

- reflecting the limitations of its design, the CAN is now subject to extensive capacity constraints. Occupancy rates at cross-connects are very high, and in many areas, it is not possible to meet demand for additional lines in a timely manner; and

At the same time, the processes of convergence, and the technology changes driving those processes, mean that investment (and particularly large-scale investment) in upgrading, adapting or modifying the CAN, or even rolling out the CAN to new geographic areas, becomes an increasingly risky proposition. Picking the right technology platforms in which to invest, and ensuring an appropriate return on such investments, is a critical challenge confronting Telstra.

As suggested, regulation will have a bearing on whether and how this investment occurs. Unless the regulatory environment is changed so as to significantly reduce its distorting impacts,[23] it is difficult to see any commercial incentive for Telstra to incur the substantial outlays involved in upgrading the CAN. The main driver for CAN investment will be, then, to meet social policy objectives. Even against the backdrop of social policy objectives, it has been recognised that such investment will not always be warranted.[24]

The effect of depressing and distorting efficient investment incentives does not only fall on Telstra. For example, artificially reducing charges for competitors' use of Telstra's existing network also inefficiently reduces Telstra's competitors' incentives to invest in infrastructure of their own. Telstra's competitors account for a small and declining share of total network investment,[25] despite the fact that they have gained and are gaining substantial retail market

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23 Regulatory distortions affect not only the existing copper network, but also its wireless alternatives. Section 2.3 of this submission considers how convergence impacts upon regulation of markets.

24 See, for example, the conclusions of the Australian Communications Authority in its *Digital Data Inquiry: Public Inquiry under section 486(1) of the Telecommunications Act 1997*, August 1998 at page 102, accepting that Telstra's claim that the costs of prescribing ISDN services as part of the USO would exceed the expected benefits was substantiated: (available at: http://www.aca.gov.au/publications/reports/digital/ddrfinal.pdf).

25 Telstra's First Submission, 2-3, 26, 38 and 55; Telstra's Second Submission, 2 and 22.

share. A consequence of this is that, as there are few alternatives to Telstra's infrastructure, the regulation of that infrastructure - which was intended to be merely a transitional phenomenon - becomes a permanent feature of the landscape, as do the costs regulation inevitably imposes.

In short, Telstra believes that current regulatory settings will not efficiently promote the development of high-quality broadband infrastructure. That infrastructure is critical to realising the benefits of convergence for all Australians.

3. Market conduct regulation

By way of overview comment, Telstra considers that, in spite of the ever-widening scope of the ACCC's powers under Part XIB, the outcomes resulting from its use of, and failure to use, those powers has become less and less consistent with efficient policy objectives. Rather, the outcomes generated by the ACCC are artificial, arbitrary, appear to be largely media driven and are at odds with longer term goals of economic efficiency and sustainable competitive growth. These points are elaborated upon below in the sections that follow.

To reflect on the Commission's view on Part XIB, the Commission has recommended that the anti-competitive conduct provisions of Part XIB be repealed[26] because:

- those provisions create an enhanced opportunity for regulatory error and overreach;
- Part XIB has proven complex to administer;
- the cases which have arisen are very few, appear minor and would arguably have been more appropriately dealt with under Part XIC;
- there are alternative avenues to address such concerns, including through Parts IV and XIC of the TPA (the latter of which will be improved even further by adopting the Commission's other recommendations); and
- there has been an increase in sustainable competition within the industry, so that there would be no significant effect on competition if Part XIB were repealed.

Telstra has argued in support of the Commission's recommendation (and its reasoning) with respect to the future of the telecommunications-specific competitive conduct rules. The rules in Part XIB are clearly an impediment to genuine competition and their repeal is the only course of action open to ensure that:

- the significant error costs of regulatory overreach are avoided; and
- the regime is streamlined to reduce participants' costs.

In particular, Telstra has previously commented in the various submissions made by it to this review that:

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[26] Draft Recommendation 5.1 (Draft Report at page 5.42).

(a) Telstra agrees with the concerns expressed by the Commission with regard to the lack of clear regulatory boundaries between Parts XIB and XIC of the Trade Practices Act (an additional case study on this is set out in section 3.2). Whilst it is difficult to quantify the costs of the uncertainty associated with this lack of clarity, the interplay between the two regimes imposes a brake on the development of strong competition and dampens the incentives for vigorous competition;[27]

(b) the justifications put forward for the creation of a telecommunications-specific set of competition rules in addition to that existing under Part IV of the Trade Practices Act were always, and continue to be, highly questionable;[28]

(c) Part XIB has proved entirely unnecessary, as Part IV (and, in an indirect way, Part XIC) of the Trade Practices Act provides the ACCC with substantial and sufficient powers to regulate anti-competitive conduct;[29][30]

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[27] See page 12 of Telstra's Third Submission on this specific point. See pages 54-55 of Telstra's first submission to the Commission's present inquiry: Telstra, *Submission to the Productivity Commission Inquiry into Telecommunications Specific Competition Regulation*, 9 August 2000 (the "First Submission") for a discussion of how Part XIB places a brake on legitimate competition. See pages 28-29 of Telstra's second submission to the Commission's present inquiry: Telstra, *Second Round Submission to the Productivity Commission Inquiry into Telecommunications Specific Competition Regulation*, 18 October 2000 (the "Second Submission") for a discussion of how Part XIB creates high uncertainty costs.

[28] The justifications originally put forward being (in summary): (1) the need for speed; (2) that the purpose test in s46 of the Trade Practices Act was deficient and that this would be cured by an 'effects' test; (3) the need for greater penalties to constrain anti-competitive conduct; (4) the size of Telstra; (5) the complexity of telecommunications; (6) the existence of horizontal and vertical integration; (7) to guard against foreclosure; and (8) concerns regarding scope for predatory cross-subsidies. See Telstra's First Submission, 32-36; Telstra's Second Submission, 27; and Telstra's Third Submission, 12.

[29] See Telstra's First Submission, 28-31 for an extensive discussion of cases where this proposition would have held true; Telstra's Second Submission, 27-28; and Telstra's Third Submission, 12.

[30] Telstra notes that other participants in this review have commented upon recent legal developments in respect of the interpretation of section 46 of the Trade Practices Act (specifically, the decisions in: *Australian Competition and Consumer Commission v Boral Ltd* [2001] FCA 40, (2001) ATPR ¶41-803 (at the time of writing, subject to an application to the High Court of Australia for special leave to appeal); and *Melway Publishing Pty Ltd v Robert Hicks Pty Ltd* [2001] HCA 13, (2001) ATPR ¶41-805). Telstra considers that the Commission's required aim under its Terms of Reference is to improve the performance of the regulatory regime in terms of economic efficiency. In that and the present context, the relevant inquiry is whether Part XIB, in light of its operation to date and the existence of Parts IV and XIC, improves the performance of the regulatory regime in terms of economic efficiency, or if it should be repealed. The current intense speculation and

(d) Part XIB introduces asymmetric regulation into the Australian telecommunications-specific competition regime, which has the potential to create significant distortions in the market;[31] and

(e) the ACCC's additional powers under Part XIB, and the lack of appropriate procedural and merits review of the exercise of those powers, creates a significant risk that, if Part XIB is not wound back, much legitimate pro-competitive conduct, investment and innovation will be deterred, causing significant harm to both static and dynamic economic efficiency and short, medium and long term consumer welfare.[32] This is particularly the case, given the highly dynamic nature of the telecommunications industry.

Telstra does not propose, in this submission, to repeat the arguments it has made on previous occasions with regard to these considerations. Those arguments have been dealt with at some length. The purpose here is essentially to provide additional evidence to the Commission demonstrating that the purported justifications for an industry-specific conduct regime do not hold true. However, Telstra would add a further category to the long list of costs and errors identified above that Part XIB generates – namely, the costs arising from asymmetric application of Part XIB (discussed in section 3.1 below).

3.1 Asymmetric application of Part XIB

In Telstra's view, the Part XIB regime has been asymmetrically applied to date, exacerbating the costs that the regime otherwise generates. The experience of the ACCC's exercise of its powers under Part XIB strongly suggests that, with the exception of Telstra, carriers which are vertically integrated (such as Cable & Wireless Optus ("CWO")) can ignore the threats associated with that Part, while at the same time enjoying the ability to raise the spectre of Part XIB with the ACCC against Telstra without incurring any costs in doing so.

A recent example of this is the refusal by CWO to allow interconnection of its GSM network with Telstra's CDMA network for the delivery of short message services ("SMS")[33] and the

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debate about the proper interpretation of the recent s46 cases cited above is not an appropriate matter for the Commission to reach a view upon in order to achieve its aim in this review. Accordingly, and in spite of the ACCC's own claims that s46 has been substantially strengthened in light of these decisions, Telstra does not provide any comment here in respect of these recent legal developments.

31 See Telstra's Third Submission, 12-13.

32 See Telstra's First Submission, 29, 32 and 36; and Telstra's Third Submission, 13.

33 By way of background, SMS relates to text messages that can be sent and received on mobile handsets. The service is recognised throughout the world as a cheap, efficient and personally

ACCC's expressed reluctance to investigate that conduct under Part XIB, notwithstanding the adverse impacts of CWO's refusal on consumers.

It is worth stressing at the outset that SMS is a highly valued element in the feature set of current mobile telephony. The ability to provide this service on a ubiquitous basis is an important factor in ensuring the take-up of the new CDMA network. Moreover, providing for ubiquity in this service seems entirely consistent with the broad objective, set out in Part XIC (but which nonetheless should help guide the ACCC's interpretation of the consumer interest), of securing "any to any connectivity".

By way of background, Telstra approached CWO in August 2000 to negotiate the interconnection of its CDMA network with the CWO GSM network for the supply of SMS. Some four months later, CWO had not even reviewed the service definition supplied by Telstra during those negotiations. Since that time, CWO has continued to refuse interconnection to Telstra, despite Telstra pursuing this issue frequently and vigorously. At the time of writing, nearly 12 months after commercial negotiations were commenced, CWO has still not agreed to interconnect with the Telstra CDMA network. This is despite the following:

- Telstra offering to supply CWO a Frame Relay service at nil expense and with speedy installation, in order to facilitate the interconnection of the CDMA and GSM networks and so as to allow the supply of SMS over the two networks; and

- CWO initially advising Telstra that it would take CWO four weeks to resolve billing issues. After five weeks, when prompted by Telstra, CWO advised that it would take a further ten weeks to resolve those issues. Telstra then offered to supply CWO with a Logica Box technical solution in relation to the supply of SMS over the two networks. This technical solution would ensure that SMS is compatible with the requirements of mobile number portability, a regulatory requirement that is due to commence on 25 September 2001.

Faced with CWO's continuing refusal to agree to interconnect and despite exhortations from the Australian Communications Authority ("ACA") and the Australian Communications Industry Forum ("ACIF") that this functionality should be implemented prior to the commencement of mobile number portability in September 2001, Telstra and another carrier met with the ACCC to discuss alternative measures to bring this issue to resolution. The ACCC suggested that it was reluctant to use Part XIB against CWO because that Part was a "nuclear option" and was not its

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non-intrusive form of communication. It is also a valuable service for the deaf. Furthermore, the use of SMS on CDMA handsets allows, in many cases, mobile users in outer-metropolitan, rural and regional areas to utilise SMS as a cheaper form of personal communication than traditional telephony services.

preferred way of dealing with the issue. As seen in the following example, however, this reluctance to investigate is not apparent when the target is Telstra.

3.2 ACCC's use of Part XIB – termination of calls on others' networks

Frequently, commercial expectations are unsettled in the industry, when migration is required from a legacy technology to a next generation technology. How Telstra advises and informs its wholesale customers of product exit requires sensible commercial management. However, it is equally clear that responsibility must also be taken by wholesale customers to avoid dependence upon legacy technologies, arbitrage schemes or pricing structures that are clearly short-term and not sustainable.

These issues emerged in the case of ISDN SPC pricing and the case of permitted attachment private lines ("PAPLs").[34] In Telstra's view, its ability to migrate on a reasonable basis to new technologies and efficient pricing structures is impeded by other parties using Part XIB complaint processes. This migration path problem is further illustrated in the following recent example.

3.2.1 Background

During 1999, the ACCC was made aware of commercial disputes concerning the termination of data calls on competitors' networks. In the course of that year, Telstra lodged an access dispute against a carrier –Primus - concerning the price of acquiring terminating access on that carrier's network. Similar disputes against AAPT and PowerTel were lodged during 2000

With the growth of long held data traffic on the PSTN, it was becoming apparent by early 1999 that the interconnection paradigm for setting the price of termination on an interconnecting carrier's network on a timed basis was unsustainable and, increasingly, anachronistic. This is because retail price controls require the calling customer's carrier to offer a long held local data call at no more than 22c including GST on an untimed basis. After allowing for its own costs of carriage on its own network, the calling carrier would be unable to pay out a timed termination payment for data calls (which may be 40 minutes' duration on average) without losing money.

These disputes were lodged in accordance with the relevant criteria relating to the declared service, PSTN Terminating Access. After the lodgment of the first of these disputes, in December 1999, the ACCC released a discussion paper concerning *Principles for Determining Access Prices for PSTN Terminating and Originating Access on Non-dominant Carriers*. Telstra and other parties provided submissions responding to the ACCC's discussion paper.

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[34] For earlier reference to these issues, see Telstra's submission to the Commission, dated 24th October 2000, para 4.2

Following the receipt of submissions, the ACCC held an industry roundtable in Melbourne on 3 March 2000 to discuss issues arising from the submissions. At that roundtable, the ACCC's own consultant recognised the dilemmas posed by the issues, namely, the effect of the price control obligations on Telstra in relation to terminating calls on competitors' networks. As was noted by the ACCC's consultant, Professor Stephen King:

> "…the way the [price control] regulation is set up you might end up with a money pump basically turning up … you can basically force negative profits onto one network and use that to cross subsidise winning subscriptions on the other network.
>
> … I am sure everyone in this room would support lobbying the Federal Government to … fix up some of these stupid regulations if the money pump is there".[35]

The effect of the price controls, in combination with increased terminating access prices, is to drastically undermine Telstra's ability to recover the costs of carrying such calls to other networks. Clearly, the ACCC recognised this policy dilemma.[36]

Some two months after the roundtable, Telstra wrote to the ACCC expressing the view that, to enable further movement in commercial negotiations which had then stalled, the ACCC should issue its final pricing principles on so-called non-dominant carriers as soon as possible and immediately indicate when that would happen. In August 2000, some five months after the industry roundtable, the ACCC released draft pricing principles in relation to call termination on so-called non-dominant networks. Telstra responded with a submission to the ACCC's draft pricing principles. The general thrust of Telstra's submission was to reinforce the concerns that the ACCC had itself recognised at the industry roundtable.

In November 2000, the ACCC issued its interim determinations concerning the charges that Telstra was required to pay to terminate data calls on the AAPT and Primus networks.[37] In

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35 ACCC transcript of proceedings, 3 March 2001.

36 Indeed, in the ACCC's most recent submission to the Commission's Inquiry (page 38), it states that "[w]hat is clear … is that there is a high degree of uncertainty as to whether the interconnection models and pricing principles that have been applied to pricing access to the PSTN for voice services are necessarily appropriate for pricing PSTN access for data services".

37 Respectively: Section 152EA Interim Determination of 4 November 2000 between Telstra (Access Seeker) and AAPT (Access Provider), relating to PSTN Terminating Service (ACCC File No: D01/5199); and Section 152EA Interim Determination of 21 November 2000 between Telstra (Access Seeker) and Primus (Access Provider), relating to PSTN Terminating Service (ACCC File No: D01/5200).

December 2000, Telstra notified a similar access dispute with PowerTel to the ACCC.[38] In March 2001, the ACCC released its final pricing principles concerning non-dominant networks. At the time of writing, no final determinations have been made by the ACCC in any of the three arbitrations.

3.2.2 The emergence of a different entity – data calls to ISPs

Nearly ***two years*** passed between the ACCC being notified of the existence of access disputes relating to non-dominant networks and the release of the ACCC's final pricing principles. In that time, a different entity emerged: an ISP seeking to arbitrage the PSTN only for data.

These ISP entities were operating as "call sinks" in which calls would be collected on a server (not "terminated" in a traditional sense) and the revenues the ISPs collected would fund their overall operations.

In order to flag to the ACCC that a decision was required of it in order to move to new data interconnection models, Telstra indicated that it would exercise its legal rights[39] to withdraw from arbitrations lodged by such parties from whom Telstra had declined to expand its purchase of PSTN Terminating Access for data calls, in order to widen the commercial negotiations to comprehend alternative forms of data interconnection and not just the PSTN model. The ACCC agreed to facilitate these discussions in an "assisted mediation" and suspended the arbitrations pro tem.

Subsequently COMindico, which had not been party to these arbitrations, but was relying, according to analyst reports, on above cost termination payments from Telstra to fund its network rollout, launched a very public media campaign against Telstra.

For example in June 2001, prior to a mediation between the parties, COMindico's Chief Executive Office, Mr Steve Demetriou, claimed that:

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38 Refer ACCC Media Release MR369/00, 22 December 2000.

39 See S152CN(a)(ii) TPA. In fact were these veto rights to be repealed as is the Government's intention, Telstra submits that access seekers could still not be forced to acquire services under Part XIC that they do not require. It of considerable surprise to Telstra that the ACCC in its most recent submission has used this case to seek (still) greater powers to compel a carrier with monopsony power to acquire services (at p.38). This is particularly the case given the ACCC's earlier comments (quoted above) that there is doubt about the suitability of PSTN termination services for data calls. The position the ACCC is adopting is particularly surprising given that Telstra had always offered any to any connectivity to other carriage service providers (indeed, consistent with the discussion on SMS inter-operability above, Telstra believes the ACCC's or ACA's ability to declare standards in this area should be augmented). The principle that Telstra is seeking to defend here is the flexibility needed in Part XIC dispute resolution processes to permit and promote the most efficient means of achieving this connectivity.

> "They [the ACCC] have been totally supportive [about COMindico's claims under Part XIB]. We believe that they have enough to issue a Competition Notice against Telstra"[40]

These statements followed the publication of an article entitled "Too Big? Too Bad", which appeared in *The Australian* on 9 June 2001 in which the ACCC, while declining to speak specifically about the COMindico investigation, suggested that it was very concerned about Telstra's actions. In this article, it was reported that:

> "After weeks of commercial haggling, COMindico raised the stakes this week, inviting Fels to issue one of his dreaded competition notice for anti-competitive behaviour.
>
> If the ACCC chairman finds against Telstra, penalties can start running at $1 million a day while the conduct continues.
>
> [Fels said that] "I find it amazing that Telstra and other dominant firms are complaining about regulation when they are flourishing so much".[41]

Then, in another media article, released on the second day of mediation discussions between Telstra and COMindico, it was incorrectly reported that Telstra had prevented its own customers from making dial-up calls to the COMindico network. This article again came with the threat of a competition notice, publicly announced, against Telstra. In this article, it was reported that:

> "Telstra appears – for the moment – to have denied end-users the opportunity to assess for themselves the performance and price of a highly efficient competitive national network, based on the latest technologies …
>
> COMindico has asked that the ACCC issue a competition notice against Telstra – a sign of serious frustration – as a way of resolving this matter".[42]

This media campaign was only resolved after a week-long arbitration in June 2001 in which COMindico agreed to a new arrangement for carriage of data calls to its network.

At the time of writing the ACCC has not completed any relevant Part XIB investigation. No particulars of allegedly illegal conduct have been supplied to Telstra. In the meantime Telstra is attempting to commercially resolve the termination disputes with the other affected ISPs.

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40 Computer Reseller News (18 June 2001), p.16.

41 *The Australian*, 9 June 2001, p23*ff*.

42 *The Australian*, 19 June 2001, p.37.

3.2.3 Policy of any-to-any connectivity

The case studies reviewed above bring into specific relief the problem of how, if Part XIB were to be repealed and the scope of Part XIC changed in the manner recommended by the Commission,[43] the policy objective of achieving any-to-any connectivity would be met by the regulatory regime left in place.

At a general level, there are a number of regulatory mechanisms that might be considered for ensuring that the policy objective of any-to-any connectivity is met. For example:

- an express right of interconnection to the networks of other carriers for the purposes of achieving any-to-any connectivity could be introduced into the Telecommunications Act 1997 (Cth).[44] The terms of such interconnection would be by commercial agreement between the parties, with rights of arbitration made available where the parties cannot agree;[45]

- the Australian Communications Industry Forum could be charged with leading the development of an industry code covering any-to-any connectivity requirements; or

- the ACCC's or ACA's ability to declare standards in this area could be augmented.

Regardless of what ultimate mechanism is adopted, the critical point is that flexibility must be maintained to permit and promote the most ***efficient*** means of achieving such any-to-any connectivity.

At the same time, it is fundamentally important to ensure that there are adequate safeguards in place so that smaller carriers cannot distort market outcomes due to the effects of the retail price caps and that Telstra is able to recover its termination costs.

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43 Telstra has previously commented that some modification would be required to the current Part IIIA criteria were those criteria introduced into Part XIC – in particular, the "uneconomic to duplicate" and "national significance" tests – to ensure that non-dominant networks can be brought within the access regime: Telstra's Third Submission, 20.

44 See generally, for example, section 137(2) of the Telecommunications Act 1991 (Cth).

45 This would create a framework akin to the provisions of Parts 3-5 of Schedule 1 to the Telecommunications Act 1997 (Cth).

3.3 Risks of error under Part XIB

Having considered some recent case studies which provide evidence of the inappropriateness of retaining Part XIB, it is instructive to recall the risks of error to which that Part generally gives rise. It will be seen that specific aspects of Part XIB increase the likelihood of such error over that associated with other general conduct regulation such as Part IV of the Trade Practices Act.

3.3.1 Lower evidentiary thresholds

From 1 July 1997, the ACCC was granted power to issue a competition notice against a carrier or carriage service provider ("entity") if the ACCC was satisfied that the entity had infringed, or was infringing, the competition rule. At that time, the ACCC was able to act by issuing a competition notice where it was satisfied that there was an infringement of the competition rule. A competition notice became *prima facie* evidence of the information contained in it. The rationale for these provisions was to reduce administrative delay.[46]

The threshold for regulatory intervention in telecommunications was further lowered in July 1999 to allow the ACCC to issue a competition notice against an entity if the ACCC has "reason to believe" that the entity has breached, or will breach, the competition rule. The Part XIB provisions were also amended to allow the ACCC to aggregate different aspects of an entity's conduct to determine whether the entity has engaged in, or is likely to engage in, conduct which substantially lessens competition or is likely to have that effect.

Another important amendment was the introduction of a new competition notice procedure, which distinguished between Part A and Part B competition notices. Part A competition notices have no evidentiary effect. However, they are able to describe the general nature of the conduct engaged in, thereby (supposedly) allowing them to be issued more swiftly and with less care in the drafting. The serving of a Part A competition notice "sets the clock ticking" in terms of a proved breach of the competition rule.[47] Surprisingly, the ACCC's powers were further bolstered in legislation that took effect during the course of the present inquiry. Under section 9 of the Communications and the Arts Legislation Amendment Act 2001 (Cth), which came into effect on 5 June 2001, the ACCC was granted a new power to issue an advisory notice at the same time as (or after) it issues a Part A competition notice.[48]

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46 Second Reading Speech to the Trade Practices Amendment (Telecommunications) Bill 1996 (Cth).

47 An entity that is found by a court to have infringed the competition rule is liable to a maximum $10m penalty for the initial breach and a maximum $1m per day that the infringement continues.

48 An "advisory notice" advise the carrier or carriage service provider of the action it should take or consider taking, in order to ensure that it does not engage, or continue to engage, in the kind of conduct dealt with in the Part A competition notice.

When evidentiary thresholds are lowered and the prosecutor or complainants face no penalty for error, there is limited incentive for the regulator or complainants to 'get their case right'. While this may reduce the regulator's administrative costs on a per-case basis (although not the defendant's), it is likely to increase the amount of litigation. Hence, it is likely to increase the total administrative costs borne by society. More importantly, a reduction in the evidentiary threshold greatly increases the scope for Type I errors.[49]

Policy-makers do not, however, appear to have considered the potential increase in total administrative costs that will inevitably be caused by lowering the evidentiary threshold and hence increasing the incentives for potential plaintiffs to litigate. Rather, the focus has seemed to be almost exclusively on reducing the administrative costs associated with the alleged delays inherent in the 1997 regime.[50] The amendments discussed greatly increase the potential for error associated with regulatory intervention, as demonstrated in the following brief review of the Part XIB experience.

3.3.2 The Part XIB experience

Despite the need for caution in applying regulation in dynamic markets, the ACCC has issued eight competition notices under Part XIB since 1 July 1997. Two of these related to internet peering and six related to commercial churn.[51] In none of these cases was there a court finding that Telstra had acted in breach of the competition rule, nor any concession by Telstra that it had breached the Trade Practices Act.

It was argued in respect of the internet peering case[52] that the ACCC either misconceived or misconstrued each of the evidentiary elements of the competition rule. In particular:

(a) Telstra's market share in the defined Access Market was rapidly declining and entry barriers were low (although the ACCC alleged that Telstra had substantial market power in that market);

(b) the ACCC based its assessment of Telstra's conduct by reference to a hypothetical market that had a number of small, equally sized ISPs (an implausible counterfactual);

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49 In the balance of this submission, "Type I errors" are referred to as "regulatory errors".

50 See Telecommunications Legislation Amendment Bill (1998) (Cth), Outline, p.2.

51 Churn occurs when a customer changes supplier or discontinues service.

52 Ergas, H, Internet Peering: A Case Study of the ACCC's Use of its Powers Under Part XIB of the Trade Practices Act 1974, (1999) (available at http://www.necg.com.au).

(c) the ACCC failed to recognise the strong efficiency justifications for Telstra's refusal to enter into peering arrangements; and

(d) the ACCC failed to distinguish impacts on competitors from impacts on the competitive process.

Similarly, others have queried whether the ACCC understood the nature of the internet industry before resorting to its Part XIB powers and deciding to intervene.[53]

Between August 1998 and April 1999, the ACCC issued a series of six competition notices in respect of Telstra's commercial churn service. It alleged that various terms and conditions under which Telstra offered to churn a customer's fixed line services from Telstra to a service provider which was reselling Telstra's telephony services, were a use of Telstra's market power and had the effect or likely effect of substantially lessening competition. The ACCC was particularly concerned with Telstra's prices, although Telstra had set its prices below its actual costs of providing the transfer service. Telstra felt obliged to reduce its prices even further below its costs as a result of the regulatory pressure brought to bear by the competition notices.

The commercial churn notices were the subject of extensive Federal Court litigation, commencing in December 1998 and concluding in February 2000 when the ACCC discontinued the proceedings (and withdrew its competition notices) in light of the extensive evidence filed by Telstra.

Arguably, the ACCC's use of its competition notice powers did not lead to fast, cheap or efficient outcomes:

(a) the proceedings ran for over 12 months without reaching a substantive hearing; and

(b) the proceedings involved both the ACCC and Telstra incurring substantial costs and diverting significant resources from other activities.

In addition to these discontinued and inconclusive competition notice proceedings, the regime led to:

(a) no finding that Telstra had committed any wrongdoing; and

(b) below-cost pricing of churn, thereby promoting inefficiencies.

In other investigations under Part XIB, the ACCC considered:

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53 See Jew, B and Nicholls, R, *Internet Connectivity: Open Competition in the Face of Commercial Expansion*, (1999), pp.13ff.

(a) for a period of almost 12 months, a complaint from AAPT Limited alleging that the interconnect prices charged by Telstra to AAPT were anti-competitive and in breach of the competition rule, when the effects of Telstra's retail STD charges were taken into account. Eventually, the ACCC accepted Telstra's explanation that it was not acting in breach of the Trade Practices Act; and

(b) allegations by PowerTel and One.Tel that Telstra had breached, *inter alia*, Part XIB by refusing to supply adequate switchports. Following its investigation, the ACCC issued a media release on 7 July 2000[54] stating that it did not have reason to suspect that Telstra had contravened, or was contravening, the competition rule in Part XIB. The ACCC was satisfied that Telstra was "responding to significant, unprecedented increases in interconnection forecasts" from the industry.

The lesson from these various examples is clear. Governments have placed significant priority on lowering the evidentiary threshold to allow the ACCC to act more quickly and in a less administratively burdensome manner, despite evidence (at least at the time) suggesting that delay and backlog were not a significant problem in the pre-existing system[55] and despite the ACCC being able to seek an injunction in a court.

As the economic theory of legal process would predict, the lower evidentiary threshold has led to less rigorous decisions on the part of the regulator, a further rise in the incentives for Telstra's competitors to try to use the competition notice system to distort market outcomes and a consequent increase in regulatory errors occurring, with the resultant costs of such errors being imposed.[56] Those costs are the subject of the next section of this submission.

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54 ACCC Media Release MR 177/00, 7 July 2000.

55 See the Senate Select Committee Hearings, citing, Mr Shogren in evidence on 3 February 1999, p.65. The Senate Select Committee quotes Mr Shogren as saying "[b]y and large we think the legislation is working satisfactorily … we think the legislative framework is adequate for the job … To a degree, you have to think about what has been happening in the last 18 months as the bedding down of a new regulatory framework …".

56 Additionally, in all the proceedings discussed above, the ACCC did not need Part XIB as it could have brought its allegations and investigations under Part IV of the Act. It could have alleged, for example, that Telstra had refused to "peer" in breach of section 46 (alleging an anti-competitive purpose instead of the allegation of an anti-competitive effect). Alternatively, if the ACCC wanted to avoid having to prove Telstra's purpose and preferred to rely on an allegation of an anti-competitive effect, it could have argued that Telstra's existing agreements with the IAPs contravened section 45. A further alternative would have been to deal with the matter as an access issue under Part XIC.

3.4 Costs of regulatory errors under Part XIB

Telstra has discussed the costs associated with regulatory errors under Part XIB in previous submissions. The purpose of the brief discussion following is to highlight:

- some specific examples from the Part XIB experience which illustrate the types of costs which arise; and
- that such costs arise throughout the Part XIB processes, not simply if a competition notice is issued.

3.4.1 Illustrations of costs arising under Part XIB

The internet peering case (discussed briefly above and in previous submissions) provides a broad, but useful, illustration of the detrimental impact of regulatory errors. In that case, Telstra ultimately provided peering (access on a "sender keep all" basis) to its internet backbone to ISPs whose networks were far more limited in scope than its own. These ISPs, once granted peering access, had significant incentives to "free ride" on Telstra's facilities. The evidence following that case indicates that Telstra has increased its share of bandwidth capacity – with limited investment by competitors outside Sydney and Melbourne – suggesting that the ACCC's intervention has tended to lessen, rather than enhance, diversity and competition in the provision of internet backbone services.[57] In addition, Telstra was required to establish processes to differentiate and filter traffic entering its network.

Regulatory errors also impose costs by altering the behaviour of firms away from conduct that would have otherwise led to socially optimal outcomes. As the following examples (and others set out in this submission) show, a firm that is the subject of a competition notice is likely to be pressured into shifting or altering its behaviour (as a rational commercial response) until the matters dealt with in the competition notice are resolved:

- in the commercial churn case, Telstra was ultimately pressured into reducing the price of its churn services, which were already set below cost, after the issuance of the competition notice; and
- in the internet peering case, under pressure from the competition notice issued, Telstra concluded peering arrangements with three internet access providers even though they did not technically qualify as peers.

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[57] See www.consult *9th IAP Report: Internet Access in Australia* (October 1999), page 19.

It has also been shown, in the case study presented in section 3.2, that significant costs in terms of brand damage can arise from the threatened, and actual, use of Part XIB, even where there is no conduct which would fail the threshold test set out in that Part. The adverse publicity shown by the case study alone has a negative impact on customer, investor and political relations of the firm.[58] Though it is difficult to quantify these costs precisely, the fact that firms expend large resources on marketing and public relations suggests that these costs, especially for a high-profile and partly publicly-owned firm like Telstra, are not negligible.

In evaluating the incidence and burden of regulatory error, it is also important to note that, even in those situations where the allegations made under a competition notice are so weak and improbable as not to be considered to have a very high chance of successfully proceeding to trial, the costs associated with regulatory error will still be incurred nonetheless. This result follows because it would be remiss of any firm, and arguably a breach of directors' and management's duties to protect the interests of the firm's shareholders, if it made no effort to deal with the charges contained in a competition notice (for example, by engaging legal and economic advisers). In Telstra's view, the claims made (and discussed below), for example, with respect to switchports, to semi-permanent circuits and to PAPLs were so lacking in foundation as to be vexatious. Yet no screen or filter appears to have been applied to these claims, causing Telstra to incur substantial costs in responding to the resulting investigations.

This is even more so under Part XIB because of the high level of penalties under that Part, which create strong incentives for the firm, upon issuance of a competition notice, to desist from the impugned conduct until the matter has been properly determined. Knowing this, Telstra's competitors have clear incentives to try to use the system so as to stall changes that they view as commercially disadvantageous, while using the delay to negotiate, in the shadow of the ACCC, an outcome especially favourable to their own interests. In the ISDN case, in the PAPL case, and most recently with respect to COMindico, this seems to have been an important element shaping the use of the Part XIB provisions.

These costs of regulatory error – in terms of distorted signals to markets, unnecessary imposts on particular players and incentives for regulatory gaming – are particularly high in newly emerging or restructuring markets. The internet peering case provides striking evidence in this respect. At the time the issues arose, there was considerable uncertainty in the industry as to whether peering would remain a viable model for internet interconnection. The dynamics of the internet connectivity market pointed to more of a settlement model evolving and a move away from peering was clearly underway in the United States. Telstra's own response was to be

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58 For a well-documented account of adverse impact of legal liability on share price performance, see: Bittlingmayer, G, *Investment and Antitrust Enforcement*, (1999) (available at: http://www.gsm.ucdavis.edu/~gnbittli/). The study examined 21 major US industries from 1947-1991 and found that each extra antitrust case filing was associated with a significant decline in investment in the industry.

cautious in the face of these trends, avoiding commercial arrangements that might lock Telstra in to inappropriate interconnection models.

The ACCC, however, far from showing regulatory forbearance in the presence of uncertainty, imposed an interconnection model that was plainly at odds with economic efficiency and was ultimately inconsistent with the dynamics of the market. The results of that intervention have since acted as a persistent obstacle to the full development of commercial relationships in the Australian internet market.

A similar lack of forbearance in the face of uncertainty and limited information pervaded the ACCC's intervention, under its Part XIB powers, in the matter of the supply of semi-permanent circuits in Telstra's ISDN service. These circuits were made available in Telstra's initial implementation of ISDN, which involved supplying ISDN services from a small number of ISDN-only exchanges. This "overlay network" approach was adopted because Telstra was one of the first major carriers worldwide to offer a commercial ISDN service. When it did so, uncertainty about market demand and the lack of standardised ISDN feature sets made it prudent to provide the service as an overlay to the existing network, rather than installing the service capability in the network itself.

The economics of the overlay service were such that it was efficient to devote some of the spare capacity at the specialised exchanges to providing what were in reality permanent connections. By relying on excess capacity, these connections offered a relatively inexpensive alternative to Telstra's higher quality digital leased lines. However, as Telstra made the transition to FMO, in which ISDN capability was integrated into the local exchange, the spare capacity that had been used to provide semi-permanent connections was no longer available. In effect, as the capacity was now being derived from a general purpose local exchange, it competed directly for switching resources with ordinary circuit-switched services. Moreover, it was plainly inefficient to rely on a circuit-switched solution to provide a "nailed up" path – indeed, Telstra was the only carrier worldwide to offer the service at issue. As a result, Telstra was of the view that the service ought to be withdrawn.

The ACCC, however, seemed to place no weight on these efficiency concerns or more generally, on the manner in which changing technology was reshaping the appropriate mode of service provision. Rather, despite the change that had occurred in network architecture, it sought to ensure the "grand-fathering" of the rights of those who had benefited from the service in its previous form. This eventually resulted in Telstra devising an offer geared to the concerns of those affected.

It is worth noting that, in acting in this way, the ACCC was effectively seeking to determine the service suite that ought to characterise what was then an essentially new service—that is, post-FMO ISDN. While it is true that aspects of the economics of the new service were uncertain, this should surely have led to some greater prudence on the ACCC's part, all the more so as those aspects that were not uncertain were so clearly consistent with Telstra's view.

It is also worth noting that if the ACCC had concerns about the pricing of the substitute service – digital leased lines – it had the powers to intervene in respect of these under Part XIC, as these

were a declared service. However, it seems unlikely that Part XIC, given the appeal rights it provides, would have allowed the ACCC to intervene quite so blatantly to favour particular interests as it did in this case.

A similar concern with protecting particular private interests in the face of technological change is manifest in the ACCC's Part XIB investigation of the withdrawal of the PAPLs due to the upgrading of Telstra's network. PAPLs were provided so as to support a designated range of applications in an essentially analogue and low-speed digital environment; the main feature of these applications, most dating from the 1960s, was that they required DC continuity. Telstra's network upgrade and FMO involved the roll-out of optical fibres to replace copper wires which would not guarantee DC continuity. As a result, Telstra proposed to reduce and ultimately withdraw the availability of these lines. Some of Telstra's customers were using PAPLs as a way of transmitting signals outside of the voice frequency range. However, these lines were plainly not intended for, or adapted to, this particular high speed use, as transmissions at high frequencies could potentially cause severe interference. Moreover, Telstra was able to offer superior alternatives to support the intended range of applications, and the unbundled local loop service and the wholesale DSL service would provide for high bandwidth uses.

Again, the ACCC did not view this as part of the normal process by which network services are adjusted in line with changing costs and patterns of demand. Rather, it sought here to use its Part XIB powers to "grand-father" what it clearly viewed as existing "rights": that is, as entitlements that it could confer and protect. The result was to complicate a transition process that would otherwise have been managed commercially, perpetuating highly inefficient patterns of network use.

It is inevitable that technological change will create adjustment issues. Moreover, the efficiencies it yields generate a "surplus" and there are inevitably those who would seek to obtain a greater share of that surplus than they might otherwise be able to do. As a general matter, competition policy does not seem a sensible instrument for attempting to manipulate the outcomes in this respect: as the High Court recently reconfirmed in its *Melway* decision, it is the goal of section 46 "to promote competition, not the private interests of particular persons or corporations".[59] This is all the more the case when there is inherent uncertainty as to what "right approach" would eventually emerge from the operation of competitive forces.

The Part XIB powers, as their practical application shows, have allowed these cautions to be disregarded. Moreover, as the ACCC's approach to the use of these powers has become apparent, the signal they send to firms in the industry has become ever more clear: that their interests, in the face of change, can and will be protected from the ordinary disciplines of the

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59 *Melway Publishing Pty Ltd v Robert Hicks Pty Ltd* (2001) ATPR ¶41-805, paragraph 17 (at page 42,752).

market-place. The costs this imposes – in altering behaviour and ultimate outcomes – are difficult to quantify but cannot legitimately be ignored.

3.4.2 Costs throughout the Part XIB processes

Regulatory errors can impose costs, even where the matter has not been finally determined by judicial decision or, in the case of Part XIB, no competition notice is issued.

For example, before deciding whether or not to issue a competition notice in a particular case, the ACCC usually initiates an investigation following a complaint being made about anti-competitive conduct. In most instances, an investigation will require the participation of the firm accused of the impugned conduct. Such an investigation is usually very fact-intensive (for example, detailed examination of costing data) and involves significant diversion of the firm's time and resources into responding to, and participating in, the ACCC's investigative process. Indeed, the costs are even greater since those costs incurred by other industry participants involved indirectly in the investigations and other processes associated with the issuing of a competition notice must be taken into account.

If the pre-notice period is by no means a simple and costless process, the post-notice period is even less so. There are likely to be additional requests for information and particulars by the ACCC after the competition notice has been issued. Furthermore, the ACCC may issue additional notices later in time and modify the details of the notices. The firm under notice will not only have to engage legal and economic advisors in order to manage and respond to these matters, but also to keep track of the changes and the increased and different risks faced as a result of those changes.

It is clearly implausible, therefore, to argue as some have that, in those cases where the issue of a competition notice does not ultimately lead to a trial and the imposition of a penalty, no compliance costs would be incurred. This is important as the incidence and burden of regulatory errors will be under-estimated if only the number of unsuccessful judicial proceedings is considered.

3.4.3 Conclusions

By lowering the legislative and procedural hurdles for regulatory intervention, Part XIB significantly reduces the litigation costs incurred by regulators and complainants in individual cases. However, the impact on total administrative costs is less clear. Policy-makers do not appear to have considered the increase in total administrative costs that inevitably occurs as a result of lowering the evidentiary threshold and hence increasing the incentives for potential complainants to complain to the regulator.

Part XIB is essentially a "one way bet" as far as complainants are concerned. Their costs are socialised; the worst that can happen is that the ACCC decides not to proceed with a complaint. As a result, the system exhibits none of the effects that the common law rule of cost allocation has in deterring low-probability claims under section 46 of the Trade Practices Act.[60]

The argument that reducing the legislative and procedural hurdles will reduce the administrative costs in individual cases, which was the primary rationale for these regimes, is strongly disproved by the experience under Part XIB, as briefly described above and discussed at greater length in previous submissions.

The reduction in the legislative and procedural hurdles for intervention under Part XIB, coupled with the rapid growth and high levels of technological change that characterise the telecommunications industry, significantly increases the chances of regulatory failure and the associated efficiency losses.

3.5 Flawed concept of "telecommunications" markets

Even aside from the asymmetric application of Part XIB and the risks and costs of regulatory error under Part XIB (as discussed in the preceding material), it is clear that the policy justifications for Part XIB do not withstand scrutiny. For example, in relation to technology developments and considering the evidence from section 2 of this submission, it is clear that convergence:

(a) renders existing bottleneck markets for the supply of telecommunications services (and, indeed, other services) more contestable and more competitive and generally reduces the market power of incumbent firms in a number of ways; and

(b) leads to the redefinition of markets, as the process of convergence itself is one of market and industry restructuring.

As a result, regulatory policy and practice in a converging environment must take account of competition from non-traditional sources and technologies when defining markets.

This fundamental premise was recognised as long ago as 1994 by the then Trade Practices Commission (the "TPC"). In making a submission to the then Federal Government's review of post-1997 telecommunications policy, the TPC commented that:

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60 Under common law, costs are borne by the losing party. The deterring effects of such a rule on unmeritorious claims are examined in S. Shavell "Suit, Settlement and Trial: A Theoretical Analysis Under Alternative Methods for the Allocations of Legal Costs" (1982) 11 *Journal of Legal Studies* 55. While there is a lively debate as to the extent of this effect, the relevant literature leaves no doubt that a rule that removes any risk of loss from the complainant will reduce the quality of claims.

> "... [convergence is] presently having, and will continue to have, a significant influence on the definition of markets in terms of competition law. It is no longer relevant, in a regulatory sense, to speak separately of a telecommunications industry. The telecommunications sector is but one part of the communications industry."[61]

Part XIB, however, flies in the face of this long-recognised broader nature of converging markets and proceeds from the basis that it is sensible to speak of distinct and separate markets called "telecommunications markets". The features of convergence described in section 2 of this submission, particularly:

- changes in demand patterns;
- technological changes; and
- expanding potential sources of competitive products and competitors,

demonstrate that there is no longer (if there ever was) a valid distinction between "telecommunications" markets and other markets. An analytical approach based on such a distinction –as taken by Part XIB[62] – is seriously flawed. More than this, it has the potential to distort efficient outcomes and impose costs associated with regulatory error (as discussed above).

Reliance upon the general competition law framework contained in Part IV of the Trade Practices Act, on the other hand, allows appropriate market definitions to be reached in particular cases, with full regard for the impact of competing products, suppliers and technologies.

3.6 Industry-specific *vs* generic rules

The justification for industry-specific, rather than generic, rules has long been recognised as being highly limited, if not suspect. Indeed, the forerunner to the ACCC, the Trade Practices Commission, in making a submission to the then Federal Government's review of post-1997 telecommunications policy, strongly cautioned that:

> "... [industry-specific] restrictions can chill price competition, for example by limiting the discounts or rebates which a supplier may grant. They are also invariably costly to

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61 Trade Practices Commission, *Submission to the Federal Government's Review of Post 1997 Telecommunications Policy*, 1994, 14. The submission contains a foreword by the then Chairman of the Trade Practices Commission, Professor Allan Fels.

62 Refer the operation of sections 151AK, 151AJ and 151AF of the Trade Practices Act.

> administer, since they typically involve complex and largely speculative judgments about the consequences of business actions. Finally, they can substantially distort incentives, notably by (1) making it profitable for the firms subject to the restrictions (typically the dominant incumbent) to engage in the strategic conduct aimed at escaping their effects and (2) encouraging entrants to seek to 'trigger' any constraints on the incumbent which the restrictions may provide for ... it would seem preferable to rely on vigorous enforcement of the current Part IV protections to protect the competitive process".[63]

Indeed, we are indebted to the then Trade Practices Commission for reminding us that:

> "The difficulty with introducing industry-specific measures is that the concepts used in legislation are often untested and can bring undesirable results, notwithstanding the best efforts of those attempting the drafting. In addition, introducing this form of regulation attempts to second guess the market and the relative competitive positions of the market participants, at the time of introducing the regulations and at some time in the future. This approach can have unintended consequences when the industry-specific regulation cannot match the dynamics of the marketplace and the end result is a law that is at best redundant, or at worse, regressive. The TPC believes that the most appropriate regulatory environment for ensuring that marketplace barriers do not arise, will be found not in specific rules that are directed at what is happening in an industry at one particular moment in its history, but in a structure that matches the flexibility and innovation that characterises the industry".[64]

Furthermore, the Chairman of the then Trade Practices Commission, Professor Allan Fels, in a signed foreword to the same document, observed that:

> "The TPC's basic premise in this submission is that general competition law should be applied to the telecommunications industry as far as possible".[65]

Bearing in mind these salutary remarks, as Telstra has discussed in previous submissions, and reiterates, the justification for the creation of a telecommunications-specific set of competitive conduct rules in addition to that existing under Part IV of the TPA was always, and continues to be, highly questionable.[66]

This is particularly the case when:

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63 Trade Practices Commission, Submission to the Federal Government's Review of Post 1997 Telecommunications Policy, 1994, 9.

64 *Ibid*, 20.

65 *Ibid*, Foreword.

66 First Submission, 32-36.

(a) account is taken of the strong and sustainable state of competition in the industry[67] (which the Commission has recognised);[68] and

(b) greater pro-competitive outcomes have been achieved through the access regime under Part XIC of the Trade Practices Act and through the facilities access regime in Parts 3-5 of Schedule 1 to the Telecommunications Act 1997 (Cth). These regulatory devices have provided the framework for the industry to become, with very low exposures to investment risk, largely contestable. Furthermore, those outcomes have been achieved far more efficiently than Part XIB would ever allow.[69]

Given the above, there is *prima facie* little case for treating telecommunications differently from other industries by applying different competitive conduct rules to those which apply generally and thus little justification for Part XIB.

However, the proponents of a continuation of the Part XIB regime[70] argue that this *prima facie* case is at worst irrelevant, or at best, defeated by the following considerations:

- while a telecommunications-specific access regime might be sufficient to address antitrust concerns in telecommunications markets where there are already structural safeguards in place which greatly reduce the need for ongoing behavioural regulation, this is not true of Australia where structural separation of the incumbent telecommunications company has not been applied; and

- special conduct provisions are needed to hamper the incumbent's ability to leverage from fixed line services to new services. It is particularly important to provide maximum safeguards against this conduct because of convergence and the importance of new telecommunications services.

These claims are considered below in sections 3.6.1 and 3.6.2 respectively.

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67 Refer Second Submission, 27. See also report of Professor Ordover (*Effective Telecommunications Service Competition in Australia and the Need for Regulatory Reform*, 26 November 2000) submitted by Telstra.

68 Draft Recommendation 5.1 (Draft Report at page 5.42).

69 The Commission's proposed recommendations for enhancing and improving Part XIC will likely build further on Part XIC achieving appropriate and efficient outcomes.

70 See for instance Leonard, P. 2001, 'Best practice telecommunications regulation – Is Australia heading in the right direction?', Paper prepared for the UNSW seminar on Competition Law held at the Grace Hotel, Sydney on 14 and 15 May 2001, and ACCC Submission to the Productivity Commission's Review of Telecommunications-specific Competition Regulation.

3.6.1 Absence of structural separation measures

Generally, it is argued by some that, without structural separation measures, sector-specific competitive conduct regulations may be necessary.

However, this argument is premised on two propositions:

- there are no policy substitutes to explicit structural separation measures as a means of addressing any inherited market power of incumbent operators, and hence there is a need for stronger regulatory oversight by the ACCC; and

- structural separation is an efficient and unproblematic way of dealing with any inherited market power of incumbent operators and as a corollary of this, absent powers such as Part XIB (or the implementation of structural separation itself), Telstra's internal management arrangements should as far as possible mimic such ownership-based structural separation.

Both of these propositions are challengeable in light of recent jurisdictional developments that reflect the accumulated experience of courts and regulators.

Furthermore, these claims tend to overlook the extent to which operational and accounting measures already provide transparency in relation to Telstra's provision of wholesale services to itself and to external access seekers. Specifically, these measures taken together provide the means of adequately addressing the two areas of concern raised with Telstra by the Commission during its inquiry in the context of quasi-structural separation measures, namely that:

- absent strong cost justification, Telstra be unable to price access services lower (or otherwise provide those services on more favourable terms) to its internal customers than to external access seekers; and

- there not be scope for Telstra to extract monopoly rents, even though it is treating internal and external customers for its network services even-handedly, by charging both parties above economic cost for these services.

These points are elaborated upon in the following sections.

(a) Effective substitutes for structural separation already in place

Current Australian legislation already has measures in place that, for the purposes of regulatory transparency, serve as an effective substitute to explicit structural separation measures. There is a regulatory accounting separation requirement, under which Telstra is currently required to provide separate accounts for retail, external wholesale and internal wholesale services. This requirement is bolstered further by information disclosure obligations. The regulatory oversight facilitated by these rules, in combination with general trade practices provisions, serves many of the same ends as structural separation policies.

To elaborate on this point, in May 2001, the ACCC introduced accounting separation measures under the regulatory accounting framework ("RAF") of the record keeping rules ("RKRs").[71] The RAF requirements constitute both horizontal and vertical accounting separation requirements, providing full transparency of Telstra's cost and revenue related information to assist the ACCC with access and market conduct related inquiries.

The RAF provides the ACCC with a detailed analysis of service costs and with a clear insight into the cost structures of Telstra (and other carriers and carriage service providers), at both total wholesale and retail service levels. For each wholesale and retail service, the RAF provides cost information defined by:

- category (for example, CAN, transmission and human resources);
- cost type (that is, operations and maintenance, depreciation and mean capital employed); and
- attribution type (that is, direct, attributable and unattributable).

Furthermore, the RAF cost allocation manual allows little discretion to Telstra to manipulate figures for costs or revenues.

Apart from providing the ACCC with information relating to all declared services (which the ACCC can use in relation to its arbitration of access disputes under Part XIC), the RAF assists the ACCC in its market conduct regulation by revealing the direct, directly attributable and unattributable costs for retail and declared services. These cost figures may then be compared with revenues earned to calculate the profitability of any service. The RAF can also be used to assess allegations such as predatory pricing or vertical price squeezing.

The ACCC has itself expressed the view that the RAF will provide it with full transparency of Telstra's cost and revenue information, noting that the regime:

> "… means costs can be clearly allocated to specific services with direct, attributable and unattributable elements separately identified across the retail and wholesale components of a carrier's business. The benefits of this approach are:
>
> - for the Commission, ***it will minimise opportunities for cost manipulation*** and provide a basis for comparing costs across different carriers and carriage service providers and the market;

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[71] Refer ACCC Media Release MR112/01, 14 May 2001. The RAF is available at: http://www.accc.gov.au/telco/rkr/RAF_instrument_May_2001.zip

- it will provide regular and audited financial and other information …"[72]

As the emphasised words indicate, the RAF constrains Telstra and other carriers from manipulating their costs and therefore provides the ACCC with a fair and reasonable guide as to costs and revenues for relevant services. If, however, the ACCC considers that the information in the RAF is not sufficiently granular for it to resolve access or market conduct issues, then the ACCC can still use that information as a first point of reference for seeking further, more detailed, information to assist it with those inquiries under its RKRs powers.

The RAF also applies to the subsidiaries of carriers and carriage service providers if those entities are carriers or carriage service providers themselves, and from whom it is relevant for the ACCC to require reports. Accordingly, the ACCC has directed the following Telstra subsidiaries to report under the RAF requirements:

- Telstra Multimedia (deemed by the Minister to be a carriage service provider);
- Advantra; and
- On Australia.

The reporting by Telstra and these subsidiaries provides the ACCC with clear insights into all of Telstra's general cost and revenue information for all relevant line items in Telstra's accounts for declared and other wholesale services, as well as the specific services provided by these subsidiaries. For example, in addition to the services specified in the RAF relating to Telstra, the other activities reported will include:

(a) provision of broadband and multi-media services (Telstra Multimedia);

(b) network facilities management, web-housing, internet dial and electronic data interchange (Advantra); and

(c) provision of internet services via Telstra BigPond (On Australia).

The costs and revenues are also provided in audited form to the ACCC.

Furthermore, if the reporting of the information to the ACCC itself is not considered to provide sufficient transparency for other industry participants, then the ACCC has broad powers to disclose that information. The ACCC is empowered to:

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72 ACCC, *Regulation Impact Statement for the Telecommunications Industry Regulatory Accounting Framework made under section 151BU of the Trade Practices Act 1974*, May 2001, 5 (emphasis added).

(a) require Telstra to prepare reports based on the information reported under the RAF; and

(b) subject to certain legal criteria and administrative requirements, require those carriers or carriage service providers to disclose to another party, or to disclose to a broader audience, the information held under the RAF.

Consequently, concerns about the absence of structural separation measures are addressed under the RAF and are bolstered by the ACCC's ability to use its disclosure powers to release the information to particular parties or to a broader audience.

(b) Inappropriate policy mechanism

The second rebuttal of the need for telecommunications-specific conduct regulation based upon the lack of structural separation of telecommunications incumbents in Australia is that structural separation policies are no longer considered to be an appropriate policy mechanism.

For example, in the US, Judge Green attempted a ring-fencing exercise as part of the implementation of the divestiture of AT&T. The result by the mid 1990s was that the US courts were inundated with applications for some determination to be made as to whether a particular service did or did not fall within the allowed lines of business of the local exchange carriers.[73]

Since its rise in popularity some 10 to 20 years ago, it has become apparent that structural separation in telecommunications imposes large costs in terms of efficiency and national competitiveness. As a result, country after country has moved away from it – Denmark in 1980, Finland in the early 1990s and the US in the late 1990s – and there are no countries left which still pursue a policy based on that approach.

The US has not abandoned structural separation overnight, but the Telecommunications Act of 1996 (US) is designed to eliminate this constraint on the regional Bell operating companies. Regulatory decisions in a number of States, namely New York[74] Texas,[75] Kansas and Oklahoma[76]

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73 Paul H Rubin and Hashem Dezhbakhsh, 1995, *Costs of delay and rent-seeking under the Modification of Final Judgement*, Managerial Economics, 16, 385, at pp. 385-87.

74 See: Federal Communications Commission announcement of 22 December 1999 (available at: http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/1999/nrcc9101.html).

75 See: Federal Communications Commission announcement of 30 June 200 (available at: http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2000/nrcc0034.html).

76 See: Federal Communications Commission decision of 19 January 2001 (available at: http://www.fcc.gov/Bureaus/Common_Carrier/Orders/2001/fcc01029.txt).

and Massachusetts[77] have allowed the local Bell operating company to supply long distance telephony.[78]

US regulators have recently revisited the issue of structural separation in other areas. In March 2001, the Pennsylvania Public Utilities Commission rejected the structural separation of Verizon's (Bell Atlantic) network and retail operations in Pennsylvania, instead requiring the company to undergo more detailed accounting separation (which it termed 'functional structural separation'). An estimate of the extent of economies of scale and scope can be seen in Verizon's estimate of the restructuring costs associated with structural separation – a one-off cost of US$800 million, with ongoing cost of US$300 million per annum.[79] During regulatory proceedings, the Commission was persuaded that full structural separation would require as much regulatory oversight as accounting separation:

> "… the parties have convincingly argued that even with the implementation of structural separation of Verizon's wholesale and retail arms, no less regulatory oversight than that currently prevailing will be required to ensure compliance."[80]

In the UK, Oftel has not supported structural separation of British Telecom ("BT"), believing that appropriate accounting separation and prohibition on cross subsidy can ensure the benefits available through economies of scope are passed on to customers. In 1999, Oftel stated:[81]

> "Oftel is not proposing to pursue this option [structural separation] now because:
>
> Many enhanced services are closely connected to the provision of network services. In practice, it could be difficult to separate the assets used in both activities - and any such separation could involve a high degree of cross selling;"

Oftel has always considered there to be benefits from the integration of network and enhanced services arising from the sharing of different facilities (economies of scope). These advantages are likely to benefit the customer as long as regulatory controls on abuse of dominance

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77 See: Federal Communications Commission announcement of 16 April 2001 (available at: http://www.fcc.gov/Bureaus/Common_Carrier/News_Releases/2001/nrcc0112.html).

78 A relevant application in respect of Missouri was withdrawn by the applicant: see the Federal Communications Commission's announcement of 7 June 2001 (available at: http://www.fcc.gov/Speeches/Powell/Statements/2001/stmkp126.html).

79 http://puc.paonline.com/agenda_items/2001/pm032201/osa-111.pdf p10.

80 See: http://puc.paonline.com/agenda_items/2001/pm032201/QuainBloom_Jt_Motion.pdf

81 Oftel, Promoting Competition in Services over Telecommunication Networks, 1999, available at: http://www.oftel.gov.uk/publications/1999/competition/promote/contents.htm

including accounting separation and the prohibitions on unfair cross subsidy and undue discrimination enable fair competition in the market.[82]

It is not surprising that the trend in telecommunications has been to move away from structural separation rather than towards it. Structural separation results in a loss of the efficiencies that are achieved through vertical integration. As a result, customers would be forced to bear higher costs than were indeed required. In addition, it is not clear that there are significant benefits from separation, especially not of the order required to outweigh the substantial costs involved with separation.

Moreover, unlike other industries in which structural separation has been enforced, telecommunications is a technologically highly dynamic industry. Current technological developments are marked by the convergence of services and infrastructures that were once distinct – local and long distance, fixed and mobile, data and voice, point-to-point and point-to-multipoint. In this environment, attempts to define sharp distinctions between network layers or between services are likely to become quickly outdated, imposing substantial economic costs.

The result of this discussion is that, in Telstra's view, any argument in support of Part XIB based upon the absence of structural separation measures in Australia is fundamentally misconceived and unsupported. Even accepting that quasi-structural separation measures are appropriate then, given the measures that Australia has taken in substitute of such policies (as discussed in section 3.6.1(a)), the claimed rationale for Part XIB on this ground simply falls away.

(c) Implications of the arrangements

The combined effect of the operational separation of Telstra's BUs and the accounting separation requirements imposed under the regulatory regime, is to address the two areas of concern that were raised by the Commission with Telstra at the May 2001 hearings, namely that:

- absent strong efficiency justifications, Telstra be unable to favour its internal customers over its external customers. The scope for any such favouritism is removed as a result of the separation of the BUs and the transparency of all relevant costs and revenues reported to the ACCC under the accounting separation rules; and

- any scope for Telstra to take monopoly rents at the network layer by overcharging both its internal and external customers be removed. This is achieved by the requirement

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82 Recently, BT announced a voluntary plan to structurally separate its network business into a new company, NetCo. The cost of regulation has been cited as a reason behind this decision. For example, BT note that the creation of NetCo should reduce, for the rest of BT, the regulatory impact which comes with the current vertically integrated structure – see: http://www.bt.com/World/newwave/newstructure/netco.htm

that Telstra allocate costs and revenues to all relevant services, with that information being available to the ACCC and potentially open to disclosure.

This, as described above, is a consequence of functional separation of the BUs as well as full transparency of Telstra's costs and revenues under the RAF, with such information potentially being able to be disclosed to external access seekers (or other parties), subject to the ACCC satisfying the relevant statutory criteria prior to any such disclosure.[83]

In sum, the existing commercial structures and accounting separation measures in place serve to address concerns about the scope for Telstra to engage in anti-competitive conduct.

3.6.2 Leveraging of market power

The second argument claimed to support sector-specific conduct regimes is that provisions such as Part XIB are needed to hamper the incumbent's ability to leverage from fixed line services to new services. It is, according to this argument, particularly important to provide maximum safeguards against this conduct because of convergence and the importance of new telecommunications services.

This argument can be critiqued by examining the economics behind the assertion of anti-competitive leveraging. Leveraging of power from one horizontal market to another independent competitive market is considered implausible in the economic literature. Indeed, if that were not the case, one would expect to see significant bundling of monopolised services with unconnected services. However, bundling is likely to occur where there are efficiency gains from doing so. These may be economies of scope in production (for example, the ability to send a single bill) or in consumption (the need to only pay for one bill) or both. As a result, if leveraging is suspected between horizontal markets, any efficiency gains from operation in both need to be given consideration.

Furthermore, existence of market power in one market and a horizontal or vertical relationship into another market is insufficient evidence of anti-competitive leveraging of market power. To be satisfied that an operator was engaged in such behaviour, it would need to be demonstrated that the operator in question was in a position to make use of the market power in the primary market to affect outcomes in the ancillary market. In telecommunications this is often ***not*** the case because regulation in the primary market prevents such behaviour.

For example, incumbent operators are often found to have substantial market power ("SMP") in the market for fixed network access services. However, even if the same operators could use this SMP in the market for broadband internet services, they are prevented from doing so by regulation. For example, they are required to provide access to their facilities (for example, via

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83 Furthermore Telstra routinely carriers out rigorous testing of product proposals (including pricing) to ensure compliance with all relevant anti-competitive conduct provisions of the Act.

unbundled local loop service) at regulated terms and conditions. In such a situation, an allegation that the incumbent operator had SMP in the market for broadband internet services due to its power in the regulated market would require demonstrating the failure of regulation in the primary market.

Widespread "concerns" about incumbent telecommunications operators expanding their market power into new areas of communications via convergence should be viewed with an even greater degree of scepticism. To begin with, the convergence process increasingly involves the rollout of new network technologies – this ameliorates any advantage the telecommunications carriers may have in the new convergent markets as a result of its incumbent network. Moreover, such concerns ignore the fact that the convergence process also involves an increase in competition, in the present case often from very powerful media companies. Finally, history has demonstrated that waves of technological change such as convergence rarely if ever see an incumbent successfully extend its SMP into new markets. On the contrary, technological change most often leads to the replacement of incumbents.

Thus, the converging environment provides strong arguments against telecommunications-specific conduct rules rather than supporting the case for such rules. This is first because narrow, industry-focused rules have the potential to miss anti-competitive conduct that crosses industry boundaries. Such conduct can more than adequately be addressed under the framework provided within Part IV of the Trade Practices Act. And secondly, as emphasised above, an environment of rapid change is hardly one well suited to prescriptive forms of regulatory intervention.

3.7 Sending the right signals

One final comment is worth making in support of the repeal of Part XIB – namely, that repealing Part XIB will, in Telstra's view, send a strong signal to the industry that carriers can engage in robust, vigorous competition. This will provide considerable benefits for Australian consumers and industry.

We have shown that, as it presently stands, Part XIB distorts the competitive process. In part, this is because the threat of running to the ACCC to get a competition notice issued can serve as a strong bargaining chip for competitors to extract better, though not necessarily more economically efficient, terms from Telstra.

Given the relatively low costs to competitors of invoking Part XIB as against the costs incurred by Telstra (as well as those of the regulator and industry in proceeding through the Part XIB processes), this diverts a significant proportion of the resources that would otherwise be devoted to competitive activity into litigation and the making of litigation threats. More resources are spent on lawyers and economic advisers, and less on product development and improving services to the benefit of consumers.

Repealing Part XIB will require firms to compete vigorously.

3.8 Modifying Part XIB

Although the Commission has strongly endorsed the repeal of Part XIB, it has nonetheless briefly outlined, and invited comment upon, the suggestion made by some participants that Part XIB could be modified to fix "its undesirable features".[84] The Commission has reproduced a veritable shopping list of changes that some participants have put forward in that regard.

It is not clear, on the face of the Draft Report, how the relevant participants have demonstrated that the proffered changes achieve the outcomes apparently claimed for them. Given the basic rationales in support of the repeal of the relevant provisions of Part XIB, Telstra finds it difficult to understand what sufficient justification might be offered for adopting this approach. This is particularly the case given the high error risks associated with such a fragmented and unprincipled approach.

Since the introduction of Part XIB of the Act, there have been numerous calls for its amendment to strengthen its provisions and to remedy claimed deficiencies in its operation. Some were heeded - with mostly dubious results in achieving the benefits foreshadowed, as illustrated by the amendment proposals expressed through the passage of the Telecommunications Legislation Amendment Act 1999 (Cth) – and some were not.

In Telstra's view, the latest calls for amendment of Part XIB should be disregarded because:

(a) this approach fails to recognise that it is not a case of Part XIB merely having undesirable features, but being undesirable *per se*. The reasons for this have clearly been set out above and in previous submissions. Tinkering with odd provisions here and there does not turn bad law into good law;[85]

(b) the considerable costs imposed by the overlap between Parts IV and XIB, as well as by the uncertain relationship between Parts XIB and XIC, are not avoided by regulatory amendment of Part XIB; and

(c) good regulatory policy does not ensue from continually refining legislation until it achieves very specific outcomes tailored for particular self-interests.

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84 Draft Report, page 5.1 (refer the discussion at pages 5.40-2 of the Draft Report).

85 Furthermore, Telstra would strongly suggest that the probability of the array of legislative amendments proposed being implemented so perfectly as to approach addressing the concerns raised (rightly) by the Commission itself would be extremely low. Telstra would further suggest that, in order to achieve the right outcomes, a large amount of legal and other resources would have to be expended to achieve a smooth implementation of these amendments (with all the consequent lobbying induced) and appropriate ongoing use of those amendments.

If the Commission takes seriously the fundamental objections to Part XIB it has recognised (as listed in Section 4.2 of its report), then it is questionable whether the cost-benefit analysis of Part XIB would suggest sufficient net benefits from preserving Part XIB in some form given:

(a) the likely resources that would either have to be expended to amend it properly; or

(b) alternatively, the continuing costs it would continue to produce if it is amended imperfectly (which is the higher probability event).

Telstra strongly submits that the evidentiary burden for modification has not been met and such an approach should be dismissed.

4. Increasing investment certainty

4.1 Access holidays

4.1.1 The Commission's proposal

In the Draft Report, the Commission notes that:

> An access holiday given prior to such risky investments insures against regulatory taking …
>
> … there are grounds for an access holiday where an investment takes place that could equally well have been undertaken by another telecommunications carrier.[86]

This is similar to the proposal in the Commission's Part IIIA Position Paper:

> … investment to provide 'new' essential infrastructure will often be contestable at the construction stage and subject to high specific risks on both the cost and revenue sides ... calculating a rate of return, which provides appropriate balance between the needs of investors and users in these circumstances will be very difficult. For this reason, the Commission has endorsed the concept of 'access holidays' for these sorts of investments ...[87]

Telstra welcomes the Commission's support for the concept of access holidays and believes that the ideas we understand it is developing as a result of the Part IIIA inquiry, and following the Part IIIA public hearings, are also applicable to this review.

It is our assumption that, by the word 'contestable', the Commission is considering the merits of awarding exemption from access regulation to any capital investment where there is effective *ex ante* competition among a group of potential owners to construct new infrastructure assets. By definition, such investment must also be 'marginal', since competition means that investment must be committed as soon as the project becomes NPV positive. Telstra therefore believes that the Commission is correct to focus its attention in this area—the type of project that would be covered by an access holiday under these rules would not be one that afforded the owner any expectation of earning returns in excess of the cost of capital.

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86 Draft Report, page 8.26

87 Productivity Commission, *Review of the National Access Regime - Position Paper*, Canberra, March 2001, pages 204-205.

Awarding access holidays to contestable investments also means that there is no need to distinguish between greenfields and brownfields investment. There are many cases where major enhancements of existing assets and investment in infrastructure that provides new services to customers are highly contestable and where the investors are exposed to significant cost and/or revenue risks. Any new measures that are designed to address regulatory risk must be applied to these types of investment for the maximum possible benefit for consumers to be realised.

4.1.2 Refinements

In Telstra's previous submission, a number of obstacles were identified which would prevent the Commission achieving its intended outcome, namely to provide more appropriate incentives for investment in risky infrastructure projects. Many of these obstacles would be removed if the Commission put contestability at the heart of its proposal in the way that has been assumed. However, two of the main difficulties remain:

- time-limited access holidays would typically apply during the early, loss-making period of a new asset's life, offering little benefit when the investment is proved and access seekers want to share in the success of the venture; and

- access holidays could be used as a mechanism for avoiding broader reform necessary to ameliorate the negative impact that current regulatory practice has on incentives for efficient investment.

Telstra believes that these problems are relatively straightforward to overcome and that some small refinements to the Commission's approach would help to minimise regulatory risk. There are three main criteria that any proposed approach should be measured against:

- investors must be in a position to understand how prices will be set over the full lifetime of the asset;

- prices must be set in such a way as to provide investors with the expectation that they will earn a rate of return in line with the cost of capital for the project; and

- the firm should be prevented from exploiting *ex post* market power to generate uncapped monopoly profits for shareholders.

The three mechanisms described in the table below appear to meet these conditions. One further consideration that is not addressed in detail is that, where new investment is marginal and risky because it faces competition from existing services (for example, broadband cable investment), it ought not to be caught by the declaration criteria. Appropriate interpretation of these criteria should help to ensure that investment in these types of assets is not deterred by the prospect of unnecessary regulation.

Type of Access Holiday	Applicability	Advantages/Disadvantages	Implementation
Access Holiday I: Exemptions for projects awarded by tender The first option builds on the idea that competition for the market can by itself be sufficient, in certain circumstances, to restrict market power and provide an upper limit on prices. • An exemption from access price regulation should automatically be granted to investments in which an explicit competition could be conducted for the investment. • Bids from potential owners would need to specify the prices that they intend to charge once the project is complete. • On evaluation of bids, the project would be awarded to the bid that represented the best value for money over the life of the project. Bidders are likely to react to this mechanism by evaluating the internal rate of return that is necessary to justify the investment given its range of possible outcomes, from both a supply and a demand side. Where risk is perceived to be relatively high for a particular project, the rate of return that would effectively be capped by the regulatory arrangements would be correspondingly high. The essence of this mechanism is that potential owners of	Almost exclusively greenfield investment in which infrastructure contracts can be awarded by a central authority at the end of a formal competitive tendering process. The non-price aspects of service provision would need to be tightly defined by the contracting authority.	The main advantage of this approach is that it limits the firm's *ex post* market power by placing a cap on the NPV of future revenue streams. It also has the desirable property of focusing the bidders on a specific and objectively comparable variable. A potentially significant limitation of the arrangements is that the circumstances of the tendering will not always be possible. An inevitable consequence of such a tendering arrangement is that the intellectual property associated with identifying an investment opportunity is lost.	The access holiday could be implemented though acceptance of a null undertaking, which would specify that no regulated access would be provided for a designated period. This closely parallels the arrangements set out in Section 3 of the Gas Code.

Type of Access Holiday	Applicability	Advantages/Disadvantages	Implementation
infrastructure are requested to define just how much "blue sky" they require before committing to the investment. From a theoretical perspective, it facilitates the market mechanism focusing on the most contentious issue (ie the area of greatest complexity), being the nature of the risk associated with the project. This is appropriate given a regulator's inherent informational asymmetry and its inability to accurately assess the cost of capital associated with risky investment.			
Access Holiday II: Pre-determined benefit sharing Any access holiday must enable the regulator and the firm to reach a common understanding over the terms of access before investment is committed. One of the least intrusive ways to reach this agreement is for the regulator to restrain itself from setting prices *ex ante*, but to agree in advance what will happen *ex post* if it turns out that the project is a success and the firm is able to make returns in excess of its cost of capital. A simple benefit-sharing agreement would be very straightforward to apply. The firm and the regulator would need to agree in advance on: • the relevant cost of capital for the project under consideration; and • the share of profits that the company should be allowed to retain in the event that the project becomes	Any discrete project in which it is possible to identify and separate the cashflows associated with the new investment. Particularly suited to projects involving the provision of services to new customers where there is high revenue risk.	This approach would ensure that returns on successful projects would not be truncated at the cost of capital, thereby allowing some 'blue-sky' to offset the losses on projects that are not so successful. It does not fully address the difficulty that the regulator faces in observing the cost of capital for a particular project and may lead to protracted disputes between the company and its regulator. The share of profits to be retained by the company would need to be determined by some rule of thumb.	It is an approach that has been used, with some success, in the petroleum industry. The Petroleum Rent Resource Tax (PRRT) applies to offshore petroleum exploration and production, but a tax is not imposed until such time as the NPV of the project, discounted by a factor equal to the relevant cost of capital, is positive. We see no reason why a similar approach could not be incorporated into the

Type of Access Holiday	Applicability	Advantages/Disadvantages	Implementation
NPV positive. However, there would be no need for regulatory intervention until such time as the firm had recouped the whole of its initial outlay, including the appropriate return. In this way, the duration of the access holiday is automatically determined according to the period it takes for the project to become NPV positive (which may provide for indefinite exemption from access regulation in the event that the project turns out to be unprofitable). The firm is constrained from exploiting its market power to the full, but much of the regulatory risk it faces under the existing regime is eliminated.			TPA.
Access Holiday III: Pre-determined regulatory rules The third mechanism addresses more directly the deficiencies in current regulatory practice, rather than attempting to side-step the issue entirely by exempting investment from regulation. The essential ingredient in this approach is an *ex ante* agreement between the firm and its regulator over key parameters in the regulatory model (which provides more transparency around the level at which prices are to be set). This would remove the risk that prices will be set in such a way as to truncate returns when investment is regarded as sunk and the specific risks at the time of investment have begun to disappear. The additional cost and / or revenue risk inherent in the type of project covered by an access holiday could be	Any investment in which the regulator believes is beneficial to retain the ability to vary prices over time (eg, because of uncertainty over future OPEX). Particularly suitable for new investment which is to be bundled with existing services and incorporated into an existing RAB, or where cost risk is the major	The main disadvantage is that the size of the contingency required for any particular project is almost impossible to determine objectively, and would become the subject of extensive debate between the firm and its regulator. However, since the regulator pre-commits, the firm would be given a 'take it or leave it' offer and could decide whether to proceed with its investment on that basis. Where the investment can be incorporated into an existing RAB, the revenue risk associated with	Pre-investment acceptance of an undertaking, which would detail the terms and conditions of access for the lifetime of the asset Alternatively, changes to the pricing principles to constrain the regulator from revisiting its initial determination would have a similar effect.

Type of Access Holiday	Applicability	Advantages/Disadvantages	Implementation
rewarded in one of two ways: • the regulator could commit to specific values for the firm-specific components in the cost of capital calculations (especially beta and the cost of debt); • alternatively, it could commit in advance to allowing new investment into the RAB at projected cost *plus* a pre-determined premium to reflect the additional risk; It can be shown that reflecting additional risk in a cost contingency has identical revenue implications to including the premium into the cost of capital. Which alternative the regulator prefers is less important than the fact that it commits not to revise the terms of the original agreement at a later date.	obstacle to investment.	infrastructure expansions can be substantially reduced.	

4.2 Rules and criteria

In its previous submission, Telstra emphasised that it will be a significant challenge to construct robust, workable and legally binding changes to the regulatory framework. Telstra does not believe that these difficulties are insurmountable, but urges the Commission to take great care to ensure that its final recommendations allow the minimum scope for regulatory discretion to come into play at a later date. This means that detailed thought will be required in two areas:

- the criteria that will be used to determine whether or not an investment should be awarded an access holiday; and

- the rules that will be used to determine the length of the holiday.

On the former, Telstra believes that the criteria should place the burden of proof on the regulator, so that it has to demonstrate that a particular project not constituting renewal or maintenance of an existing network asset should ***not*** qualify for an access holiday. In particular, the onus should be on the regulator to show that risky, new investment is not contestable, according to the definition set out earlier in this section.

On timing, all three of the options set out above would appear to be suited to a rule whereby a holiday would last for as long as it takes for the investment to become NPV positive. Under this approach, discretionary access regulation only becomes relevant when it is appropriate to share some of the benefits associated with successful projects with access seekers, and the potential for opportunistic regulatory behaviour to generate capital losses is eliminated.

5. Access disputes and arbitration procedures

There is industry-wide agreement that the arbitrative processes are not effective, take far too long, are costly and that measures could be adopted to improve the processes.

As a general matter, the absence of any clear statutory guidance about pricing methodologies and their implementation generates considerable uncertainty. Without clear guidance about how the ACCC is to price access to services, there is every incentive for parties to lodge disputes with the ACCC. Moreover, price related arbitrations can traverse a vast number of options. This is particularly so for non-traditional services (e.g., Pay TV), for which the ACCC has established no clear pricing methodology.

There is a range of measures that the ACCC could usefully employ by way of better case management practices and that would go some way to stemming the delays that are presently inherent in the arbitrative regime. These measures are considered in the following section.

However the problems with delay in the resolution of disputes will not be solved by simply giving the ACCC greater powers or resources, without dealing with the underlying access pricing issues that affect the exercise of those powers and the commercial environment in which prices are established.

5.1 Streamlining the processes

Telstra considers that better case management will assist the ACCC to reduce delays by:

- better identifying and limiting the issues in dispute at an early stage;
- establishing a reasonable timetable which parties are required to meet; and
- making decisions in a timely manner.

Mediation is also likely to be useful prior to arbitration, either to settle a dispute or to identify and limit the real issues left in dispute. More specifically, Telstra considers that the following measures will greatly assist the ACCC to more readily deal with access-related disputes.

Best practice case management

Telstra supports improving case management, so that parties to a dispute are required to attend a preliminary hearing where they can outline their evidence, and to establish a timetable for the matter in arbitration. These timetables would require all parties to file (with specified deadlines) the issues in evidence; and to agree to arbitration milestones on the way to final resolution of the dispute. The requirements would be for parties to mediate before formal arbitration and during a mid-stream evaluation review. Many of these techniques are already used by the courts.

Early agreement on pricing methodology

Disputing parties should try to reach early agreement on the methodology to be used in determining price and access. Moreover, declaration proceedings may be used to resolve pricing and cost allocation at the outset, rather than arbitrative time being consumed with discussions about alternative pricing methodologies amongst experts. Encouraging the parties to achieve agreement at the outset, is likely to allow disputes to be resolved much more quickly than is currently the case.

Greater transparency

Telstra supports a range of transparency measures, in order to ensure that the terms and conditions of declared services and the experience of arbitrations are communicated to other industry participants. For example, Telstra would support a register of benchmark prices and terms and conditions for declared services; as well as agreeing to release appropriate information in one arbitration for use in other arbitrations or mediations.

Telstra believes a balance will still need to be stuck between confidentiality and releasing information of broader significance. This balancing requirement was highlighted by the National Competition Council, as discussed in the Commission's draft report on Part IIIA:

> There are clearly issues that operate for and against a more overtly public process given the commercially sensitive nature of the prices which are being determined and also which limit the desirability of combining arbitrations even where common issues arise. Nonetheless, there appears to be some scope to consider whether current arbitration arrangements strike the appropriate balance between commercial confidentiality (especially for the infrastructure owner) and providing information to the market on likely arbitration outcomes in the future.[88]

Consolidation of 'like' cases

Telstra supports streamlining measures to prevent one issue creating multiple arbitrations and duplicating resources. To this end, the ACCC could consolidate all or part of a number of arbitrations or combine forensic investigations concerning particular access disputes. In this regard, Telstra would support the consolidation of "like" arbitrations into a single hearing in order to reduce delay and to avoid the duplication of resources by both the ACCC and the parties involved in the dispute. This also has the advantage of imposing consistency on regulatory decisions that concern the same matter.

5.2 Merits review

It is axiomatic that when significant financial interests are at stake as a result of administrative decisions, such decisions should be subject to review.

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[88] NCC submission to Productivity Commission Review of the National Access Regime, p.47.

The ACCC's accountability for its decisions is recognised both under Part IIIA of the Act in the form of merits review for the ACCC's pricing-related decisions as well as review of its authorisation decisions. The need for merits review of regulatory decisions is recognised in jurisdictions throughout the world, including the European Union, with all the countries of the European Union being required, under the terms of the European Commission's Framework Directive, to provide for full review on the merits.

The ACCC, in its most recent submission,[89] has inaccurately portrayed: its own accountabilities; the status of comparable review provisions in overseas jurisdictions; and best practice administrative review as set out by the Administrative Review Council.

Telstra provides an analysis of the approach under competition law in Australia and in other jurisdictions in Annexure A. In addition, Telstra sets out its understanding of the Administrative Review Council's guidelines for the review of administrative decision-making, supporting the principle that is precisely the arbitrative and undertaking decisions of the ACCC that should be subject to review.

In its response to the Commission's Draft Report, the ACCC has stated that it:

> … does not believe that the benefits of full merits review of final determinations [in arbitrations of access disputes under Part XIC] justify the costs and delay involved.[90]

Yet in other fora, the ACCC appears to recognise, and support, accountability in respect of its own decisions. For example, the Chairman of the ACCC, Professor Allan Fels, has stated that:

> "[a]s to accountability to the general public no agency in Australia has been of more accessible, open and accountable…"[91]

As evidence of this, Professor Fels then comments:

> "… the ACCC cannot obtain a fine, injunction or court order without proving its case to the Federal Court … ***This is a high form of accountability*** … ACCC decisions to authorise anti-competitive practices are accountable. They must be published and can be, and often are, appealed against to the quasi-judicial Australian Competition Tribunal …"[92]

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89 Australian Competition and Consumer Commission, *Response to the Productivity Commission Draft Report – Telecommunications Competition Regulation*, June 2001 (the "ACCC Response").

90 ACCC Response, 39.

91 Fels, "No Agency more accountable than ACCC", *The Australian Financial Review*, 22 June 2001, (emphasis added).

92 Fels, "No Agency more accountable than ACCC", *The Australian Financial Review*, 22 June 2001, 83.

The reality is that the decisions at issue are complex, involve very large stakes are made by means of a government imposed arbitral decision and are poorly bounded by statutory signposts. Natural justice and the assurance that outcomes will ultimately be economically efficient, requires that there be scope for careful, impartial review. Merits review is thus a key element in ensuring the integrity of decisions and minimising the scope for regulatory over-reach. Ultimately, the firms operating in this industry, and the consumers who rely on them for service, deserve a system that generates high-quality decisions that are consistent with sustained innovation and genuine competition. This is where the current arrangements fail; reducing the accountability of the regulator will only make matters worse.

In Telstra's view, the ACCC's claim that the benefits of full merits review of final determinations do not justify the costs and delay involved is surprising, given that the delays inherent in the system occur in the arbitrative stage over which it has management.

6. Access pricing

The Commission makes a number of valuable recommendations in relation to how terms and conditions of access should be determined under Part XIC. In this submission, Telstra offers its initial support for the thrust of the Commission's recommendations on pricing principles. However, Telstra believes the Commission's recommendations need to go further to address the difficulties that have resulted from implementation of access pricing under the current regime.

6.1 The need for pricing principles

The Commission recommends that setting down pricing principles in the legislation as a means of reducing uncertainty and to assist regulators in establishing terms and conditions of access. Telstra strongly agrees with the Commission's view that pricing principles could be valuable in limiting regulatory discretion and/or error and providing greater *ex ante* certainty to investors. In Telstra's view, the current regime has provided the ACCC with wide discretion in applying the methodology to set access charges and has caused the ACCC to fall into error and as a result has created considerable uncertainty for both Telstra and access seekers.

Under the current regime the ACCC has continually altered its methodology for calculating access charges resulting in a wide range of access prices for the same services and inconsistent prices between services. In addition the ACCC has continually fallen into error in its methodology necessitating an appeal to the Australian Competition Tribunal by Telstra. Uncertainty over the approach that the ACCC will and should use to determine access prices makes it difficult, if not impossible, for access providers and access seekers to anticipate the form and level of charges that would be determined by the ACCC as reasonable, either in the context of assessing an access undertaking or in arbitrating an access dispute. As a result, the current access regime provides little guidance to parties engaged in commercial negotiations over access prices, even following the publication of final pricing principles, and hence triggers access disputes that may otherwise be avoided under a more certain regime.

A review of the ACCC's approach to access pricing for key declared services highlights the range of difficulties associated with the implementation of access pricing under the current regime.

6.1.1 Domestic PSTN originating and terminating access

The ACCC's calculations of PSTN access charges have varied enormously over the period in which the ACCC has been assessing Telstra's PSTN undertakings. Neither Telstra nor access seekers could have predicted with any degree of certainty that the ACCC calculation of PSTN access prices would fall from 4.0 cents per end use minute to just 1.5 cents per end use minute in the space of three years. If access seekers could have known this, their initial business plans may have been substantially different. Certainly, Telstra incorrectly anticipated the degree to which its costs, including those associated with new investment, would be recovered.

The first indication of the ACCC's calculation of PSTN access charges came after the draft NERA report was released in September 1998. In a letter addressed to industry dated 4 November 1998, the ACCC reported preliminary comparisons between the charges in Telstra's undertaking and the draft NERA report with the stated objective of reducing confusion. In this letter, the ACCC stated that NERA's draft estimates suggested that the cost of originating and terminating access for 1997-98 was between 3.7 and 4.0 cents per minute, between 11% and 21% below the rates proposed in Telstra's undertaking.

In January 1999, the ACCC released its draft assessment of Telstra's undertaking, finding that, based on evidence from the final NERA report, the forward-looking usage-based costs of PSTN originating and terminating access in 1997-98 were 2.02 cents per minute, between 42% and 49.5% below the estimates in its November letter.

Such a drastic reduction in rates suggests that between the draft and final versions of the NERA report, NERA substantially reduced its cost estimates. However, this was not the case. In its final report, NERA concluded that line costs were between $390 and $423 compared to $495 per line as reported in its draft report, with no change in the call conveyance costs of between 1.7 and 1.8 cents per minute.[93]

In fact, the large variation in rates reported by the ACCC between its November letter and its draft assessment of Telstra's undertaking was the result of the ACCC relying on a single sensitivity analysis carried out by NERA. This sensitivity analysis resulted in a line cost of $339 and an average call conveyance cost of 1.22 cents per minute, equivalent to a total access price of 2.02 cents per minute.[94] This sensitivity test used a set of parameter values that would provide the lowest cost estimate, including:

- trench costs shared on the basis of the proportion of parties using the trench rather than on a leasing revenue basis;
- number of line cards set to 1.25 per SIO at the IRIM and 1.11 at the RSS/RSU, as suggested by Optus, instead of Telstra's provisioning rules of 1.3 line cards at the IRIM and 1.18 at the RSS/RSU;
- the number of copper pairs installed set to Optus' suggested provisioning assumptions of 1.33 copper pairs per SIO in the distribution network and 1.25 pairs per SIO in the feeder network, rather than Telstra's provisioning rules of 2.0 and 1.67 pairs; and

93 NERA 1999, Estimating the Long Run Incremental Cost of PSTN Access, Final Report for ACCC, section 5, p 68-69.

94 ACCC 1999, Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Draft Report, p60.

- use of an annuity function to annualise capital costs rather than the proxy economic depreciation advocated by NERA or the mix of depreciation profiles proposed by Telstra.

The estimates used by the ACCC in its draft assessment were below the lowest values considered by NERA to be within the range of efficient costs. This is the result of the ACCC's selection of the annuity approach to annualise capital costs, which it requested NERA to examine as a sensitivity analysis. NERA concluded that annuity depreciation profiles are even less appropriate than depreciation profiles used for accounting purposes, which fail to mirror economic depreciation profiles. NERA stated that the constant annualised capital cost, that is the result of applying the annuity, "means that depreciation increases each year, i.e. it is actually backloaded".[95] On this basis, NERA excluded the TSLRIC results based on the annuity approach from its range of cost estimates.

In June 1999, the ACCC released its final assessment of Telstra's first PSTN undertaking in which it calculated a range of TSLRIC estimates, concluding that the forward looking usage based costs of PSTN originating and terminating access for 1997-98 were between 1.87 cents and 2.77 cents per minute. The lower bound of the range was driven primarily by the use of Optus' trench length estimates rather than those used by NERA, which decreased average line costs by 21 per cent.[96] Factors increasing the upper bound from the cost estimated in the ACCC's draft assessment included allocating costs of trench sharing from an equal share to a leasing basis, reducing the allocation of trench costs to leased lines for consistency with retail pricing, and replacing the annuity with a tilted annuity.

In this final assessment, the ACCC also estimated TSLRIC for 1998-99 and 1999-00. For 1998-99, the ACCC estimated the range to be 1.73 to 2.53 cents per minute and for 1999-00 the ACCC estimated the range to be 1.71 to 2.37 cents per minute.

In September 1999 Telstra submitted a second PSTN undertaking to the ACCC. On the basis of the ACCC's estimates and its own cost modelling, Telstra proposed the rate of 2.30 cents per minute for 1999-00 and 2.00 cents per minute for 2000-01. Given that Telstra's rate for 1999-00 was below the upper bound estimated by the ACCC, Telstra expected that these rates would be accepted.

To assess Telstra's second undertaking, the ACCC chose to completely re-estimate TSLRIC for 1999-00 and 2000-01, and on this basis determined that the efficient forward-looking cost of PSTN access was 1.77 cents per minute in 1999-00 and 1.53 cents per minute in 2000-01. To arrive at these figures the ACCC retained the Optus provisioning assumptions, used Telstra's trench length estimates, reverted to allocating shared trench costs on the basis of the number of parties using the trench, reduced its WACC estimate and increased line rental

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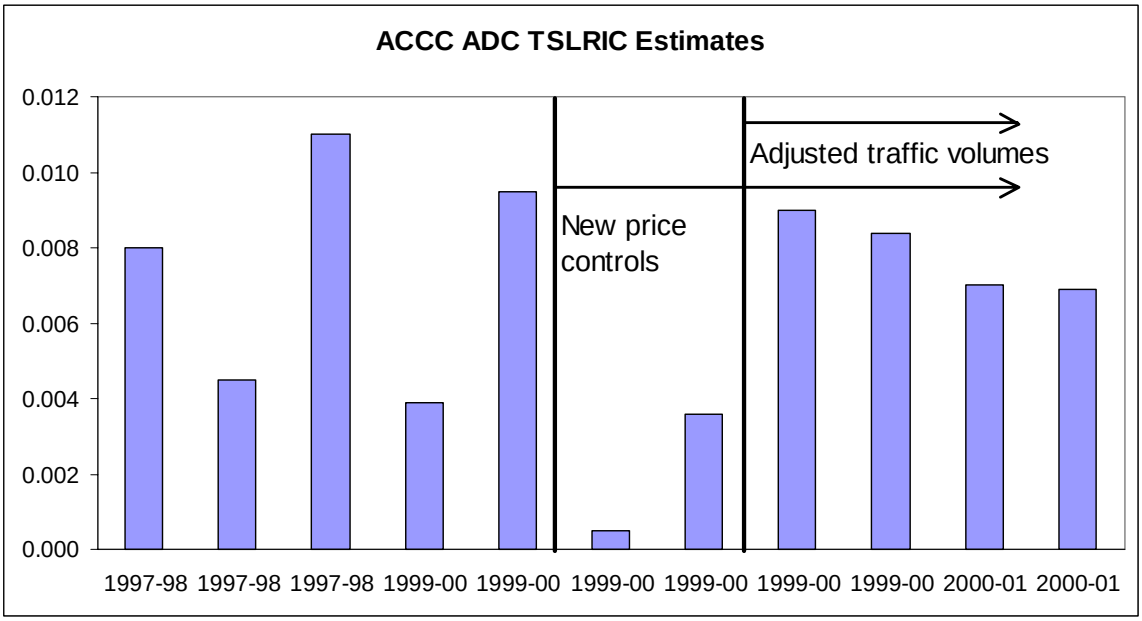
95 NERA 1999, Estimating the Long Run Incremental Cost of PSTN Access, Final Report for ACCC, section 1.6, p 11.

96 ACCC 1999, Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Final Decision, p52.

revenue to account for the new price control arrangement. On this basis, the ACCC rejected Telstra's second PSTN undertaking.

While some of the variations in the ACCC's calculations of unit prices are the result of changes in the price control arrangements and the volume of traffic carried on Telstra's network, it can certainly not be claimed that such changes are the only source of variation. For example, the figure below presents the ACCC's estimates of the access deficit contribution component of the PSTN access charge. The points at which Telstra understands that the ACCC adjusted for the new price control arrangements and higher traffic volumes in its calculations are also indicated. Increased traffic volumes would reduce the per minute cost of the ADC, all other things constant. Similarly, the capacity for Telstra to increase line rental charges under the new price control arrangements would, all other things constant, decrease the size of the access deficit. Therefore, the ACCC's estimates for 1999-00 before and after the volume adjustments are clearly not the result of volume changes, but a shift in methodology.



Sources: Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Draft Report, 19 January 1999. Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Final Decision, June 1999. Interconnection Charges and Telstra's Access Deficit, Discussion Paper, September 1999. A Draft Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services, April 2000. A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services, July 2000.

In Telstra's view, the claims by the ACCC that the prices in Telstra's undertakings submitted to date have not matched closely the prices judged by the ACCC to be appropriate are incorrect. As shown above, Telstra has submitted PSTN undertakings consistent with the TSLRIC range estimated by the ACCC. In Telstra's view, the lack of agreement on access prices stems from the fact that the ACCC had completely re-estimated access prices using a different set of assumptions and input values than used in previous periods. Such action leaves access seekers and access providers with limited ability to anticipate regulated access prices in future periods.

Telstra finds the scope for ACCC's discretion under the current regime frustrating and a major contributor to the level of uncertainty associated with its ability to recover costs.

Further, Telstra questions the likelihood of the ACCC ever accepting a PSTN undertaking from Telstra under the current regime. For Telstra's second PSTN undertaking, the ACCC calculated a single TSLRIC estimate with no indication of the variation around this estimate that it would consider reasonable and with no regard to actual costs or the international benchmarks that it reported. Telstra has limited ability to guess the ACCC's estimate of TSLRIC for future periods given the multitude of parameters and methodologies available to it for revisions.

Furthermore, Telstra considers the ACCC's approach in estimating costs for the purposes of setting charges for the PSTN access services to be wrong. As soon as a final determination in two of the arbitrations before the ACCC as to those services was made by the ACCC, Telstra appealed tot he Australian Compensation Tribunal in order to obtain a ruling as to the correct approach to be taken in the future. Had the ACCC formulated its final view on the methodology and made final determinations in the arbitrations earlier, the issue as to the proper approach may have already been resolved.

6.1.2 Local carriage service

In its *Pricing Principles for Telecommunications*, the ACCC states that it will use TSLRIC as the cost-based principle for setting access prices for services that are well developed, that are necessary for competition in dependent markets and where the forces of competition or the threat of competition work poorly in constraining prices to efficient levels. According to the ACCC's report on the declaration of local telecommunications services, local calls meet these criteria. Further, in calculating the TSLRIC for PSTN access, the ACCC allocates costs to the local call service, hence, an access price for local calls, consistent with the ACCC's calculation of PSTN access prices, is readily available.

Despite this, the ACCC set final pricing principles for the local carriage service ("LCS") on the basis of a retail-minus average retail cost approach.[97] Telstra has consistently argued to the ACCC that pricing LCS on the basis of the retail minus approach advocated by the Commission will result in a wholesale price well below the costs that the ACCC allocates to local calls in its TSLRIC analysis for PSTN access. As a result, Telstra is unable to fully recover even the level of costs estimated by the ACCC to be efficient. In their final pricing principles the ACCC states "because the Commission has not undertaken a TSLRIC++ study in respect of local calls, it is not in a position to verify or dismiss Telstra's claims".[98] Yet the ACCC uses the fact that the TSLRIC of local calls, on the basis of the ACCC's cost allocations, is above the retail price-cap as the basis for rejecting the TSLRIC methodology for LCS. For example, in its assessment of the promotion of competition the ACCC states:

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97 As a result, the ACCC's approach differs from ECPR as it fails to leave the access provider indifferent between supplying service at the retail and wholesale level. Moreover, it increases the cost of production, as entrants will retail local calls even when their retail costs are greater than Telstra's avoidable retail costs.

98 ACCC 2000, *Access Pricing Paper – Local Carriage Service*, Final report, p 7.

> access seekers who were as efficient as, or more efficient than, Telstra at the retailing of local calls would not be able to compete with Telstra unless they price local calls below the cost to them of acquiring those calls. This is unlikely to promote retail competition for the resale of local calls[99].

Similarly, in their assessment of economic efficiency the ACCC states:

> If, as Telstra claims, retail local call prices are not sufficient to enable full recovery of the portion of the access deficit allocated to local calls, and this shortfall is not being recovered from other services, then it may be that investment incentives are currently sub-optimal. In such a situation, the Commission is of the view that the retail-minus methodology is more likely than the TSLRIC++ methodology (ie with allowance for the access deficit) to have a positive impact on investment incentives.[100]

This statement seems to be a *non sequitur*: if investment incentives are being distorted by prices that are below costs, it hardly seems conceivable that setting wholesale prices also on that basis will have a "positive impact on investment incentives". Even putting this aside, the fact remains that if the ACCC considered that the LCS price must be below the retail price for local calls then, rather than using a completely inconsistent pricing approach, all it needed do was alter its cost allocation procedure in its TSLRIC analysis. For example, for 2000-01 the ACCC could allow Telstra to fully recover the TSLRIC costs it estimates by setting the PSTN interconnection charge to 2.42 cents per minute and the LCS charge at 17.44 cents per call.

In Telstra's view, the scope available to the Commission to apply different pricing principles to different declared services that result in less than full cost recovery (of efficiently incurred costs) is unacceptable. In the case of LCS the ACCC had the discretion to apply different weights to the legislative criteria and hence was still able to apply the retail minus approach on the basis of that it will promote competition, even though it is completely inconsistent with its own cost estimates and the legitimate interests of the access provider.

6.1.3 Unconditioned local loop

Another example of the arbitrariness of the ACCC's decisions is its approach to pricing access to unconditioned local loop ("ULL") service. Although the ACCC advocated a TSLRIC approach for the ULL service, its application was inconsistent with that used for setting PSTN access charges. The most fundamental difference was the exclusion of the access deficit contribution ("ADC") in the ULL charge and its inclusion in the PSTN access charges. In Telstra's view, the ACCC's basis for excluding an ADC in the ULL charge are unjustifiable

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99 ACCC 2000, *Access Pricing Paper – Local Carriage Service*, Final report, p 13

100 ACCC 2000, *Access Pricing Paper – Local Carriage Service*, Final report, p 17

and Telstra encourages the Commission to review Telstra's submission to the ACCC on its draft ULL pricing principles paper.[101]

6.2 Legislated pricing principles

Given the difficulties with the current regime as highlighted above, Telstra welcomes the Commission's recommendation that the following principles be legislated for telecommunications, namely that access prices should:

(a) 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;

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

(c) encourage multi-part tariffs and allow price discrimination when it aids efficiency; and

(d) 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.[102]

6.2.1 Telstra's response

Telstra agrees with the Commission's findings that lead to these pricing guidelines. In particular, Telstra welcomes the clear statement by the Commission that the costs of setting excessively low access prices are likely to be more insidious and have a more detrimental impact on economic welfare than the costs associated with setting access prices too high. This is a very important corrective to the current public debate that is dominated by the delivery of short-term benefits in the form of lower prices with little consideration given to the longer-term impacts on the incentives for efficient investment in essential infrastructure.

Telstra also welcomes the Commission's explicit recognition that the costs of providing an access service include a return on investment commensurate with the risks involved and that multi-part tariffs and price discrimination should be used when they aid efficiency. Telstra also supports the Commission's conclusion that internal operations can receive favourable terms and conditions if the cost of providing access to those operations is lower.

However, Telstra believes that the Commission's proposed pricing principles do not address many of the difficulties associated with the current regime.

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101 Telstra 2000, *Pricing of the Unconditioned Local Loop Service and Review of Telstra's Proposed ULLS Charges: Telstra's Submission to the ACCC Draft Discussion Paper*, 15 September.

102 Draft Recommendation 10.1 (Draft Report, pages 10.23-4).

First, Telstra is concerned that the Commission's pricing principles do not explicitly require the ACCC to set access prices that allow Telstra to fully recover its efficiently incurred costs. As the Commission's first pricing principle is constructed, it still provides the regulator with the discretion to interpret "efficient long-run costs" as the costs associated with a hypothetical firm. For example, the Commission's proposed pricing principles would not prevent the ACCC from:

- estimating the efficient operating costs as the operating costs of new assets on the basis of percentages provided by CWO instead of the efficiently incurred operating costs associated with Telstra's actual network; and

- allocating shared trench costs on the basis of the number of parties using the trench, rather than the revenue that Telstra can actually secure from third parties for leasing of trench space.

To ensure that access prices allow the regulated firm to fully recover its efficiently incurred costs, Telstra proposes that the Commission include an overarching principle that requires the regulator to set access prices at levels consistent with financial capital maintenance. In particular, Telstra proposes that the following principle be included in the Commission's pricing principles:

> *Access prices should be set in a manner consistent with the principle of financial capital maintenance – that is, owners of regulated[103] assets should be allowed to recoup the capital invested in such assets over the lifetime of the investment where such investments are considered prudent at the time they were made. Moreover, where it is claimed that investments should be disallowed, the onus of demonstrating that they were imprudent should lie on the party so claiming.*

Secondly, Telstra is concerned that the Commission's pricing principles do not explicitly require access prices to account for regulatory risk. While the Commission's first pricing principle does require access prices to include a return commensurate with the risks involved, Telstra believes that an important element of the cost of capital that is consistently overlooked by the ACCC – and could continue to be overlooked under the Commission's pricing principles – is regulatory risk. Therefore, Telstra proposes that the Commission's pricing principles explicitly acknowledge regulatory risk by including the following pricing principle:

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103 Financial capital maintenance is only a policy issue in respect of regulated assets because the owners of these assets face asymmetric risks that arise from the fact that regulation truncates their ability to earn economic profits in good times that offset any losses made during the bad times. For example, unregulated firms can accept lower revenues during the early stages of a new service because they can expect to enjoy higher revenues as the service matures. Regulated firms, on the other hand, often tend to face annual limits on their revenues and hence are unable to offset earlier losses and hence are unable to maintain their capital investments.

Access prices should incorporate the impact of regulatory risk.

Thirdly, the Commission's pricing principles would continue to allow the ACCC to ignore the costs associated with Telstra's service obligations, including the customer service guarantees ("CSGs") and retail price controls. Under the Commission's pricing principles, the ACCC would not be required to ensure that Telstra could fully recover the costs associated with provisioning its network to meet CSGs or with complying with retail price regulations. Hence, under the Commission's pricing principles, the ACCC could continue to exclude an access deficit contribution from LCS and ULL prices, without allowing Telstra to recover these costs elsewhere. Therefore, Telstra proposes that the Commission's pricing principles include a requirement for the regulator to take account of the costs associated with service obligations in determining access prices. In particular:

> *Access prices should fully reflect service obligations and community expectations about service levels.*

Fourthly, Telstra believes that the incentives for achieving productivity improvements and the sharing of the benefits of such improvements under the current regime could be made clearer. Under the ACCC's implementation of access pricing all productivity improvements made by Telstra (and even productivity improvements not made by Telstra) are passed on in the form of lower access prices. While the Commission's pricing principles do, to some extent, provide scope for setting prices above efficient long-run costs, they do not explicitly propose a sharing of productivity gains between producers and consumers. Yet accepting such a principle would reduce the likelihood of regulatory underestimation of costs, the efficiency costs of which exceed the efficiency costs of setting prices too high. Therefore, Telstra proposes that the Commission's pricing principles include the following:

> *Access prices should:*
>
> - *provide strong incentives for producers to achieve productivity improvements; and*
> - *reflect a fair sharing between producers and consumers of the gains from productivity improvements and technological change.*

Finally, the pricing principles proposed by the Commission do not address how the ACCC would determine whether Telstra's prices for declared services allow it to generate revenue at least sufficient to meet the efficient long-run costs of providing access to these services. The problem is difficult for at least two reasons:

- access prices are determined individually at different points in time, rather than as a full range of services at a single point in time; and
- it is often the case that for some declared services no access disputes exist and hence no prices have been determined.

As a result, Telstra believes it is important for the regulator to have clear guidelines in determining the prices for individual services at different points in time. To address this, Telstra believes that the first pricing principle should be changed as follows:

> *Access prices should, for individual declared services, be consistent with the access provider securing revenues that are at least sufficient to meet the efficient long-run costs incurred by the access provider in providing the service, including a return on investment commensurate with the risks involved.*

This change would ensure that the regulator could not set prices for individual services below their efficient long-run cost of provision, which is a possibility under the Commission's proposed pricing principles.

6.3 Practical implementation guide

In Telstra's view, legislated pricing principles could assist greatly in setting clearer guidelines for the regulator in determining access prices, particularly if applied consistently across different access regimes, with the effect of limiting discretion and the associated uncertainty for access providers and access seekers. However, Telstra also believes that pricing principles alone will not address many of the problems that have arisen in the implementation of specific pricing methodologies. For example, under the Commission's proposed pricing principles, there is no requirement for the ACCC to calculate a lower and upper bound of TSLRIC or to sanity check its TSLRIC results against other available benchmarks. Therefore, Telstra strongly supports the Commission's suggestion of including practical implementation guidelines as a memorandum to the Trade Practices Act. This is consistent with the approach adopted by the New Zealand Government in its Telecommunications Bill.[104]

In Telstra's view, a practical implementation guide would provide a substantial improvement if it set out a fairly prescriptive approach to pricing access and the regulator was required to adhere to this approach when determining access prices. Importantly, Telstra proposes that such guidelines would only be applied to declared services that are well established and essential for the development of competition. For other declared services (which Telstra believes should not be declared in the first place), Telstra believes that an alternative, more light-handed approach is warranted to avoid distorting the development of relatively new and rapidly changing services.

6.3.1 Alternative approaches to determining access prices

In determining the most appropriate approach to access pricing for inclusion in the guide, Telstra believes it is useful to assess alternative pricing approaches against a number of key criteria – economic efficiency, competitive sustainability, regulatory discretion and practical implementation.

In section 7.2 of this submission, Telstra uses these criteria to assess the following access pricing approaches:

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104 See Schedule 1 to the Telecommunications Bill 2001 (NZ) introduced on 2 May 2001. The Bill is currently before the Commerce Select Committee, which is due to report on 27 August 2001.

- short run marginal cost;
- historic cost;
- replacement cost;
- total service long run incremental cost;
- ECPR and the competitive imputation pricing rule; and
- bill and keep.

It is important to note that the implementation of cost-based access pricing rules – such as historic cost, replacement cost and TSLRIC – involves two distinct steps. First, identifying the relevant pool of costs to be recovered, and secondly, translating these cost pools into access prices which are to be used to recover and signal those costs. The difficulties associated with different access pricing methodologies extend across both steps of the implementation process. "Setting access prices" is sometimes used to refer to one of these phases or to both. However, distinguishing between them is important. The sense in which these terms are used here should be apparent from the context.

Alternative access pricing rules are generally strong on some criteria and weak on others. ECPR, historic costs and bill and keep are relatively simple to implement and limit regulatory discretion, however, they are unlikely to encourage efficient outcomes without increasing complexity. On the other hand, TSLRIC and replacement cost are, in principle, capable of providing economically efficient outcomes; however, both involve implementation complexities and the ACCC's implementation of TSLRIC has proved highly uncertain and inappropriate. The comparative performance of the alternative access pricing rules is summarised in the table below.

A tabular form such as the one set out below inevitably compresses and hence over-simplifies what are complex matters. No access pricing approach is, or could be, first best. What are being compared are consequently degrees of imperfection. In assessing these, it is important to bear in mind the two-step nature of the access pricing process: that is, first, the determination of the aggregate revenue ceiling, and second, the translation of that ceiling into unit charges. Economic efficiency depends on both of these steps. An approach – such as replacement cost – may allow the aggregate ceiling to be determined in a manner consistent with efficient investment; its overall effects, however, will also depend on the manner in which that ceiling is converted into charges for units of service.

In implementing the second step, the translation from a cost estimate to a price, regulators have been extremely reluctant to adopt multi-part pricing structures. Even when such structures have been used, the fixed component has been set at levels that are very low relative to those required for efficiency conditions to be met. As a result, the comparison between alternative approaches in the following table has reasonably been made assuming that prices will be determined by a simple unitisation of the revenue ceiling: that is, by simply dividing the revenue ceiling by the aggregate volume of traffic (measured in terms of minutes, calls or some combination of these). This does not rule out the possibility of more

efficient multi-part interconnection pricing structures. Indeed, Telstra endorses the Commission's recognition that multi-part and discriminatory tariffing could be used to increase economic efficiency.

	Economic efficiency	Competitive sustainability	Practical implementation	Regulatory certainty
SRMC	×	×	×	×
Historic cost	×	×	✓	✓
Replacement cost	✓	✓	×	✓***
TSLRIC	✓	✓	×	×
ECPR	×*	×*	✓	✓
Bill and Keep	×**	×**	✓	✓

* ECPR is only consistent with economic efficiency and competitive sustainability if the starting retail price is set at the efficient level.

** Bill and keep is only consistent with economic efficiency and competitive sustainability if: (1) its use is restricted to two-way interconnection between networks with approximately equal per-unit termination costs; and (2) arbitrage of the interconnection rate for bypass traffic (through refile arrangements) is prevented, for example by placing bounds on the extent of traffic imbalances that are allowed under bill and keep.

*** With no past information on how the regulator would address implementation issues, the replacement cost approach involves substantially less discretion than TSLRIC. Notwithstanding this, there are a number of implementation difficulties unique to the replacement cost approach (see below) which would necessitate judgement by the regulator, thus creating a degree of uncertainty over regulated prices.

Among the alternative access pricing rules considered in this submission, the replacement cost approach performs most favourably against the full range of criteria. The primary benefit of the replacement cost approach over TSLRIC is that it is more likely to limit regulatory discretion. For this reason, Telstra's first submission to the Commission proposed the use of a replacement cost methodology for determining access prices. However, since Telstra's first submission, a number of new considerations have arisen which Telstra believes tend to favour the TSLRIC approach.

Firstly, the Commission's Draft Report proposes legislated pricing principles and a practical implementation guide that could substantially reduce the level of regulatory discretion and / or error, and hence uncertainty, associated with the implementation of TSLRIC. If these proposals are implemented, then there would no longer be a major benefit of using the replacement cost approach over TSLRIC.

Secondly, Telstra has attempted to implement the replacement cost approach. This analysis highlighted a number of practical implementation difficulties that Telstra has had to address. While some of these difficulties are the same as those associated with the implementation of TSLRIC – such as the appropriate allocation of common costs, determining the WACC and the level of depreciation and translating costs into prices – there are also implementation

difficulties that are unique to the replacement cost approach. These implementation issues are primarily the result of the adjustments that need to be made to the firm's historic regulatory accounts. Such accounts are usually based on fully distributed cost allocation principles, fail to reflect the value of assets that have been written off but remain in use and need to be indexed to account for general and possibly asset-specific price changes since the purchase date.

Each of these issues is capable of being resolved. Indeed, in Telstra's view, a prudent regulator would review replacement cost information in "testing" the cost estimates it derived by other methods. However, these difficulties do tell against the use of replacement cost as the primary means of regulatory asset valuation. In effect, given that a replacement cost analysis has not previously been considered by the ACCC in the context of telecommunications access pricing, the way in which the ACCC would resolve these issues is uncertain and would require a fresh round of public consultation and regulatory analysis.

Third, there has been enormous time and expense invested by the industry and the regulator in working through the practical implementation issues associated with TSLRIC. As a result of the public consultation process, many of the major difficulties associated with implementing TSLRIC have been resolved. The remaining outstanding issues on which Telstra, access seekers and the ACCC continue to disagree are currently the focus of an appeal to the Australian Competition Tribunal ("ACT"). Once the ACT makes a decision, many of the outstanding implementation issues should also be resolved.

If the regulatory discretion and / or error difficulties associated with TSLRIC can be overcome through legislated pricing principles and a practical implementation guide then Telstra believes that the TSLRIC approach would be preferable to the replacement cost analysis. Substantial progress has been made in the development of TSLRIC for access pricing purposes and the ACT will determine a solution on the outstanding diverging views. In contrast, starting the access pricing process again using a replacement cost approach would require substantial new regulatory analysis which could further increase uncertainty over future access prices.

6.3.2 Proposed practical implementation guide

On the basis of the review of alternative pricing methodologies and the large degree of work that has been undertaken to date on the development of TSLRIC, it is Telstra's view that TSLRIC should be used as the basis for the practical implementation guide.

In considering how TSLRIC could be thus used, Telstra starts from the fact that, inevitably, TSLRIC will be estimated as a range rather than as a point estimate. This reflects the fact that determination of TSLRIC relies on numerous assumptions with respect to the values of key parameters; in reality, the value of these parameters could fall within a range. Understanding this range is an important element in the process of determining a reasonable overall value for the estimate.

Given this fact, Telstra believes it is crucial that there be transparency with respect to the range thus considered. In other words, the ACCC, in determining a point estimate, needs to be open and accountable as to how that point estimate sits within the range of reasonable values. At the same time, Telstra believes that there must be a degree of discipline on the modelling process: more specifically, the range of parameter values selected must be

reasonable, with each point in that range being clearly justifiable in technical and economic terms. Telstra would not, in other words, want the mere fact that a range must be estimated to be used, by the ACCC, as a way of re-introducing the virtually unchecked regulatory discretion that has characterised the ACCC's approach to TSLRIC to date.

Telstra therefore proposes that the guidelines include the following requirements:

1. TSLRIC should be estimated as a range to take into account the range of reasonable input values and methodologies that can be used in such an analysis.

2. The full range of reasonable TSLRIC-based access prices should be estimated by using two sets of input values and methodologies. Each set would need to be considered reasonable and the values within each set would need to be consistent. One set would include all of the parameter values that result in a lower TSLRIC estimate and hence when combined would provide the lower bound of the reasonable range of TSLRIC estimates. The other set would include all of the parameter values that result in a higher TSLRIC estimate and would provide the upper bound of the reasonable range of TSLRIC estimates.

3. The range of TSLRIC estimates should be sanity-checked against other relevant information, including: the access provider's historic costs; international cost-based interconnection charges; and retail charges in the markets which can only economically be contested by use of the declared service. If the TSLRIC range fails the sanity check, then an evaluation of the TSLRIC estimates should be undertaken in order to rationalise the difference and the TSLRIC range should be adjusted accordingly. For the purposes of arbitrating an access dispute, this additional information should also be used to determine where, within the TSLRIC range, the price should be determined.

4. The minimum period between undertraking a full TSLRIC analysis for any declared service subject to the pricing guide should be 3 years, with a simple roll-forward mechanism used in the intervening period. This approach would substantially reduce implementation time and costs and uncertainty during the roll-forward period. It would also increase certainty about expected access prices, as well as being capable of providing incentives for productivity improvements.

5. In assessing an undertaking, the ACCC should only reject proposed price terms and conditions if they are outside the reasonable range of TSLRIC estimates.

6. In setting price terms and conditions in the context of an access arbitration, the ACCC should have regard to the non-price terms and conditions of access, including contract length and volume commitments.

7. The ACCC should be required to disclose the full range of TSLRIC estimates and other appropriate information relevant to its decisions on access prices.

While Telstra believes that the above requirements would be desirable for inclusion in the practical implementation guide, Telstra also recognises the need for a full public consultation process if such a guide were to be adopted. Telstra would welcome the opportunity to assist

in the development of a full set of guidelines for the implementation of access pricing under Part XIC.

7. Assessment of access pricing rules

In this section of its submission, Telstra assesses a range of alternative methodologies for determining access prices against a set of key criteria. Section 7.1 of this submission discusses Telstra's views on the meaning of the assessment criteria considered and why these criteria are important. Section 7.2 then assesses a number of different access pricing methodologies against these criteria, drawing on examples from the current regime where possible.

7.1 Criteria for assessing access pricing rules

To assess alternative access pricing approaches Telstra has consolidated the Commission's eight criteria into three – economic efficiency, competitive sustainability and practical implementation. Telstra has also added "regulatory discretion" as a criterion as it believes this is a critically important issue in the current regime.

The main conclusion that can be drawn from these criteria is that an appropriate access pricing rule must provide for the full recovery of efficiently incurred costs. An access pricing rule that allows full cost recovery will encourage economically efficient outcomes over the longer-term, will allow both the access providers and access seekers to compete on a sustainable basis and will limit the degree of discretion available to the regulator in setting access prices and hence limit regulatory risk and its adverse impacts. As a result, an access pricing rule consistent with the full recovery of efficiently incurred costs will also promote the long-term interests of end-users.

Conversely, setting the regulated revenue ceiling below the long term cost of supply threatens the viability of service provision and hence may deprive users of the entire benefit of the service. Moreover, inadequate cost recovery is likely to distort consumption and competition.

7.1.1 Economic efficiency

Given that the objective of the telecommunications access regime in Australia is to promote the long-term interests of end-users, Telstra believes that economic efficiency is the key criterion against which alternative access pricing rules should be assessed. Access prices that are consistent with economic efficiency should promote efficient competition, ensure the efficient use of telecommunications infrastructure and encourage efficient investment in network facilities. In turn, consumers should be delivered lower, sustainable prices for telecommunications services over a greater range of services. Economically efficient access prices should also provide downstream suppliers with flexibility over the packaging and pricing of services and the trade-off between price and quality so that retail supply is allowed to more accurately reflect consumer demand.

In its *Access Pricing Principles for Telecommunications*, the ACCC distinguishes between three types of economic efficiency.

Access prices consistent with *allocative efficiency* will encourage resources to be allocated to their most highly valued use. In other words, to encourage allocative efficiency access prices should be set in such a way that demand for a service reflects the cost of providing the

service. If access prices distort consumption decisions, resources will be misallocated and efficiency losses will result. For example, if a regulator sets an interconnect price for a service below the marginal cost of producing the input for that service, then retail demand for that service will exceed the efficient level, as the marginal cost of producing the service will exceed the marginal consumer's valuation.[105] In addition, full cost recovery will either not occur – ultimately depriving consumers of the service – or will require the prices of other services to be raised above efficient levels, thus reducing the consumption of these other services, even when consumer valuation exceeds the cost of providing those services. As a result, resources will not be allocated to the most highly valued services and consumers will be left with prices that fail to deliver the maximum benefits possible. Allocative efficiency can be enhanced by access prices that allow scope for price discrimination (efficiency is optimised with perfect price discrimination). If access prices are constructed in such as way as to allow service providers to align prices more closely with consumer demand and hence expand output, then allocative efficiency will be improved.

Access prices consistent with *productive efficiency* should encourage services to be produced at least cost to ensure that consumers benefit from lower sustainable prices. If access prices are set too high or too low, then productive efficiency losses are almost inevitable. For example, low access prices can discourage efficient facilities-based entry and encourage inefficient access or resale entry. If access prices are set too low, access seekers will be encouraged to use the access provider's network, even if they could provide the service more efficiently themselves by deploying their own network infrastructure. As a result, consumers will forgo the benefits of network competition including more innovative services, more flexible pricing options and incentives for cost and price reductions. In addition, if access prices are set too low then the access provider will face higher network costs than an access or resale based entrant. This may allow firms with higher cost structures than the access provider to enter and compete effectively using access or resale based services. Conversely, access prices that are set too high may encourage inefficient facilities-based entry (bypass) and discourage efficient access or resale entry.

Access prices consistent with *dynamic efficiency* will provide the correct incentives for efficient investment in innovative, higher quality, lower cost technologies. Regulation can distort efficient investment decisions by setting low access rates that undermine the incentive to invest by reducing the returns to investors. However, in the absence of certainty it may be impossible for the regulator to set a price without having a detrimental effect on investment decisions. For example, Professor Stephen King, an adviser to the ACCC has recently suggested:

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105 This is on the assumption that downstream competition is sufficiently strong to ensure that low access charges are passed through to final consumers.

> [W]henever the returns from a large infrastructure investment are uncertain, the potential for declaration and access (at non-trivial prices) will tend to deter socially desirable investment.[106]

By discouraging investment, access prices can limit the development of alternative technologies that have the potential to deliver substantial benefits to consumers. The disincentive to invest as a result of low access prices also extends to the access provider. If the access provider knows that the regulator will limit its ability to recover new investment costs by determining low access prices then it will be discouraged from undertaking such investment.

Dynamic efficiency is closely linked to the concept of financial capital maintenance (FCM) discussed above. Investors must expect FCM if they are to be willing to commit funds to the enterprise. Consequently, any access pricing rule that places FCM at risk will deter investment and compromise dynamic efficiency.

While each of these forms of efficiency is important, there are inevitable tensions between them. Thus, in principle, within-period ("allocative") efficiency requires that consumption decisions at the margin are taken on the basis of prices that reflect ***marginal*** social cost; when assets are lumpy and substantially sunk, these costs may be very low, at least in the absence of congestion. Conversely, between-period efficiency requires that each unit of investment be paid its ***incremental*** cost – indeed, fully efficient investment can require that investors be fully able to capture the consumer benefit resulting from the investment decision. In industries like telecommunications, where marginal social costs are typically extremely low but high levels of costs are incurred prior to the margin, prices set equal to marginal social cost allow efficient in-period allocation, but fail to provide cost recovery. That is, they are inconsistent with the incentives needed for socially desirable levels of investment and dynamic efficiency.

The two-step nature of the access pricing process can help resolve this conflict. In essence, the aggregate revenue requirement can be set with a view to between-period efficiency, while the conversion of this aggregate into unit charges can be used to structure prices that support allocative efficiency. As a general matter, however, this will require that the unit charges are multi-part in character, so that some degree of alignment between prices and marginal costs can be achieved at the margin of consumption.

Although this is achievable in theory, it is far from easy in practice. For example, the lump sum payments associated with the two-part charge may affect entry decisions, and hence alter the degree of competition in the downstream market. There is a trade-off here that makes it impossible, under most conditions, to secure all of the efficiency conditions at once. Prices that are supportive of allocative efficiency will be "too low" to support efficient

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106 King, S. 2000, 'Access: what, where and how?', Paper presented at the Productivity Commission and Australian National University (Joint Conference) on *Achieving Better Regulation of Services*, Australian National University, Canberra, 26-27 June, p. 15.

investment; while prices that allow efficient investment will seem "too high" in terms of efficient in-period allocation.

Despite the conflict between these goals, dynamic efficiency should be preferred to allocative efficiency. There is an asymmetry between the social costs of prices that are set too high and prices that are set too low. While prices that are too high may confer rents to suppliers, allocative efficiency losses can be limited by price discrimination. At the same time, the fact that entry can occur, and that the regulated charge is merely a ceiling, means that the extent of the social losses is constrained. In contrast, when prices are set too low, production ultimately ceases to be viable. This jeopardises the entire surplus the community gains from the service at issue.

7.1.2 Competitive sustainability

While the notion of competitive sustainability could be dealt with under the heading of economic efficiency, as full cost recovery is required to achieve dynamic efficiency, Telstra believes it is important enough to be dealt with separately. If an access pricing rule prevents an access provider from recovering its efficiently incurred costs in a competitively neutral manner then it will be unable to compete with access seekers and undertake the investment required to keep the service potential of the network intact.

Competitive sustainability also extends to access seekers. It is important that access prices allow access seekers to compete effectively with the access provider. To ensure that this is the case, the access price should pass an imputation test.

7.1.3 Practical implementation

The practical implementation of the access-pricing rule is critical. Access pricing rules that are complex and costly to implement result in uncertainty for industry participants and encourage regulatory gaming and political opportunism. Ensuring that the access-pricing rule is simple, transparent and easily implemented will limit the choices regulators must make in implementing the access pricing methodology, which is extremely important in minimising regulatory discretion and/or error. In addition, pricing rules that are simple and can deliver a degree of certainty are more likely to be acceptable to all parties.

7.1.4 Regulatory discretion

Telstra believes that the degree of regulatory discretion associated with alternative access pricing principles needs to be carefully assessed when developing an access-pricing regime.

Regulation can be viewed to some degree as a contract between the regulator, acting as an agent for consumers and for the Government, and the regulated entity. This contract is inevitably incomplete, in the sense that it cannot specify *ex ante* the behaviour permitted under each possible contingency. Despite this incompleteness, the regulated entity must make substantial sunk costs, recovery of which depends on regulatory actions. At the same time, the parties' interests are not synonymous, and the regulator may have incentives to act opportunistically: that is, to 'hold up' the regulated entity's sunk outlays, expropriating the return which those outlays would otherwise have secured. This is a risk borne by the regulated firm and raises the cost to society as a whole of the services that the contract covers.

The choice of access rule influences this risk through the degree of discretion it vests in the regulator. While all possible pricing mechanisms provide the regulator with some degree of discretion, some access pricing approaches are more effective than others in disciplining regulatory opportunism. For access providers and access seekers, discretion represents a level of uncertainty as to future regulated access prices. The greater the degree of discretion a regulator has in the determination of future access prices, therefore, the greater the level of risk that industry participants need to factor into their business strategies. For example, firms may limit their exposure to risk by reducing investment to levels that may be sub-optimal, increasing their cost of capital and investing in technologies with lower sunk investments even when it is not efficient to do so.

7.2 Assessment of alternative access pricing rules

In this section, various different access pricing rules are assessed against the criteria discussed in the previous section. Price cap approaches are not explicitly considered here. This is because price caps are essentially a way of controlling the evolution of an initial price over time. That initial price must still be set; and that would normally be done by reference to one of the approaches considered in this assessment.

The different access pricing approaches can be divided into two categories depending on whether or not they involve estimating the cost of access directly. The cost-based pricing rules considered in this section are:

- short run marginal cost;
- historic cost;
- replacement cost; and
- total service / element long run incremental cost.

The other pricing approaches considered in this section are:

- ECPR and the competitive imputation pricing rule; and
- bill and keep.

7.2.1 Cost-based pricing rules

Before assessing the cost-based access pricing rules, it is important to identify the two separate steps that are generally involved with implementing these approaches. First, the size of the relevant cost pools must be estimated and second, these cost pools must then be translated into access prices. For example, in implementing TSLRIC, the ACCC estimated the relevant cost pools for different network elements including basic access lines, switching equipment and transmission links. The ACCC estimated the size of the cost pools for 2000-01 at $3,522 million for basic access lines, $814 million for switches and $1,832 million for transmission links. The ACCC then unitised these cost pools by various methods to arrive at an access price of 1.53 cents per minute for 2000-01.

While estimating the size of the initial cost pools is a difficult exercise in itself (see below), translating these cost pools into access prices that are consistent with the evaluative criteria can be considerably harder. Choosing the right access prices requires making a choice on a range of critical issues including the structure of prices and the extent of price differentiation.

Regulators have typically adopted a very simple per minute (or more rarely, per call) based pricing structure for interconnection charges. Per minute charging has the potential to produce incentives that are sharply suboptimal. Typically, total cost pools are simply divided by the total number of minutes using the network element. The access price equals the unit cost of providing the service. However, the actual marginal cost of a call minute is close to zero when the network is not congested (though it may be extremely high when it is congested). As a result, setting a single average access price means that retail prices, in most cases, will be unrelated to short run marginal costs. This generates considerable efficiency distortions.[107]

There are multiple alternative pricing structures that could be adopted by regulators but have generally been avoided, perhaps due to implementation difficulties.[108] A multi-part tariff is better at achieving fixed cost recovery because it reduces any inefficiency caused by disturbing the equality of the price of an additional unit of output and marginal cost. An example is where a block of initial units is charged at above marginal cost and the rest at marginal cost; another is where an access fee (a charge on entry) is charged for the right to consume units at marginal cost (the two-part price). More complex approaches have different prices for different units, and could include a price on a right of access, a per customer charge, per call charges and per minute charges, all varying depending on volume, but with a view to pricing marginal units at marginal cost. Another variation is to have tariff options with varying charges for the right to consume and price set to marginal cost in a certain range followed by penalty rates. In all cases, marginal use tends to be priced at marginal cost while access seekers contribute to remaining costs on some basis other than use (as determined by the other aspects of the pricing package). The key difficulty with such approaches is ensuring that high infra-marginal prices do not so depress the number of access seekers as to harm competition in the downstream market.

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107 In addition to the obvious allocative distortion, it induces potentially inefficient by-pass, notably for originating traffic, on high-use lines.

108 France is an exception. The French interconnection rate structure has three parts:

- a call set-up charge (fixed) when the person called picks up the phone;
- a usage (duration) charge; and
- a 2 megabits/s link charge (rent by year) called BPN.

Within this structure, there are three tariffs, peak, off-peak and night (the latter was established for the internet).

Another important issue in translating cost pools into access prices is the extent to which regulators are prepared to allow costs to be recovered differentially across different access customers. In a workably competitive market, wholesale prices would commonly differ across customers. These differences may relate to a number of factors including, for example, contract length, quality requirements, volume commitments and whether the price is part of a bigger package of services. However, regulated access prices tend to require uniform (per minute or per call) contributions from all service providers, including the access provider itself. This approach tends to limit the flexibility of access pricing arrangements and the ability to recover costs efficiently.

The remainder of this section assesses some more common methods for determining the relevant cost pools and comments on the extent to which the approach is complicated by the translation from cost pools to access prices.

7.2.2 Short-run marginal cost

In the textbook perfectly competitive market, price equates with the short run marginal cost ("SRMC") of service provision. SRMC is the cost associated with producing additional output over the short-run. While the short-run may vary, it is shorter than the period over which all capital is variable and hence excludes at least some sunk costs. SRMC provides a useful starting point for examining regulated pricing; however, its application to industries such as telecommunications is problematic in a number of respects and hence, as far as Telstra is aware SRMC is not used, at least on its own, by any regulator for setting access prices.

Economic efficiency

As discussed, access prices based on short-run marginal cost will encourage allocative or in-period efficiencies by aligning consumption decisions more closely with the marginal cost of production. However, determination of the aggregate revenue cap on the basis of SRMC will not encourage dynamic or between period efficiency as such an approach prevents full cost recovery when there are fixed costs, or other important sources of economies of scope or scale. These conditions typically characterise basic telecommunications services,[109] and in these circumstances setting the ceiling at SRMC will lead to inefficient outcomes in the longer run.

The situation is readily illustrated with the textbook example of a single product, where average cost declines throughout. In such cases SRMC ***always*** lies below average cost and SRMC pricing cannot allow for the recovery of fixed costs.[110] Similar results occur in a multi-

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109 However, in Australia, not all regulated services exhibit economies of scale. As Telstra has noted in its submissions to the Commission's Inquiry this suggests that the scope of the access regime in Australia has become excessive.

110 Setting the aggregate revenue ceiling through integration of the area under the SRMC curve will be compensatory. However, this is conceptually no different from setting it on the basis of average cost multiplied by quantity demanded and is not what is conventionally meant by reference to SRMC pricing. Rather, setting prices on the basis of SRMC usually refers to a

product environment.[111] As a result, the producer will always make a loss on the supply of the regulated service and hence will be unwilling to undertake future investments in sunk assets to provide the regulated service and may instead invest in technologies with lower fixed costs, whether or not such technologies provide the most efficient means of supplying the service. Access prices based on SRMC, without any means of recovering fixed costs, will also deter efficient infrastructure investment. It will always be more attractive for entrants to provide services using access based on SRMC instead of deploying their own infrastructure, even when they can do so more efficiently than the regulated firm. Access prices based on SRMC would also allow inefficient access based entry as access seekers would face substantially lower total costs than the regulated firm and could compete successfully even with a higher cost structure than the access provider.

Competitive sustainability

SRMC does not allow the access provider to recover fixed costs through the access price. Hence, if it is to compete with access seekers it cannot recover fixed costs in the prices it sets for downstream services to which access is an input. Therefore, for a regulated firm such as Telstra, with nearly all PSTN retail services subject to regulated access inputs, access prices based on SRMC would prevent the access provider from competing successfully with access seekers and achieving full cost recovery.

Practical implementation

In addition to the fundamental cost recovery problem associated with SRMC, there are also a number of practical implementation problems.

First, there are many short runs and in a regulated industry it is not generally clear what is the relevant short run. The long run is defined as the period longer than the asset life of any sunk investments. Any period less than this is a short run period, but for any such period some assets are sunk and some are not. Consider a car rental firm. The SRMC of renting a car for a day is the wear and tear on that car, plus the petrol, insurance etc. A SRMC price based on a day-long time frame would contribute very little to the price of the car. Over the period of two years, SRMC would include the price of the car (assuming the rental firm does not keep its cars beyond two years), however it would not include any contribution to leases on buildings that were longer than two years, etc. The problem for the regulator is to translate what a textbook describes as SRMC in competitive markets to the regulated context.

Secondly, the uncertainty associated with measuring SRMC concept increases the practical implementation costs associated with this method. Firms do not directly observe the cost changes attributable to marginal changes in output. Rather, firms observe cost changes over

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uniform price equal to SRMC. The aggregate revenue ceiling that corresponds to that price is simply SRMC times quantity demanded.

111 Baumol, Panzar and Willig, 1982, *Contestable Markets and the theory of Industry Structure*, Harcourt Brace Jovanovich, New York.

time. Accounting data are not generally designed to relate cost changes to output changes. Econometric techniques have been designed to make this connection. However, due to limitations in the number of observations and changes in cost functions over time, econometric results are imprecise and lag behind technological and economic developments. Cost measurement on an engineering level overcomes some of these problems but is itself costly, time consuming and the results are sometimes difficult to relate to concepts of economic cost.[112] But to implement SRMC prices the regulator, who is even less informed than firms in the industry, must be able to estimate SRMC.

The difficulties this involves are compounded by the fact that in network industries, SRMC is typically a nodal concept. The SRMC of access, for example, will differ on an exchange-by-exchange basis, and may even vary substantially by distribution area. Similarly, the SRMC of a particular offered traffic load will differ according to the specific range of routes it can traverse. Estimation of these costs therefore requires estimating, and communicating to purchasers, the shadow price of an instantaneous change in supply/demand at each of a large number of points. The modelling requirements associated with this task would go well beyond even those involved in the TSLRIC approach discussed below.

Thirdly, knowing the appropriate SRMC and being able to measure it does not identify a price. For example, knowing what a car costs, and the cost of maintenance, and wear and tear provides no information as to what the daily, weekly and monthly rates for the car should be, only that these should somehow be covered by whatever prices are recommended. Therefore, this approach requires the implementation of some approach to translate cost pools into access prices.

Fourthly, even given an algorithm for conversion of cost into prices, it is likely that SRMC varies greatly over time. As a result, prices, if they indeed reflect SRMC, would be subject to wide variation. This need not be a problem in and of itself, but there may be some degree of preference among access seekers for smoothing. Moreover, a poorly informed regulator may find it even more difficult to assess and control prices that have a wide dispersion than to monitor a smaller number of smoothed charges.

Regulatory discretion

Overcoming the practical problems identified above necessitates a high degree of regulatory judgement, which in turns makes the SRMC approach highly susceptible to regulatory risk. As discussed above, SRMC requires estimation of cost, a translation from cost pools into access prices and perhaps a smoothing process, all of which provides substantial scope for regulatory discretion.

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112 B. Mitchell and. I. Vogelsang, 1991, *Telecommunications Pricing, Theory and Practice*, Cambridge University Press, New York, p. 38.

7.2.3 Historic cost

Regulating access prices on the basis of historic cost has a long tradition. It involves the use of a company's historical accounts to estimate the cost of access to a particular service or network element.

Economic efficiency

Under conditions of approximate stability in the price level (when, as at present, the increase in the nominal price level is approximately offset by changes in product quality), the cumulated historical cost of assets will be a relatively close estimate of the financial capital invested in the enterprise.[113] As a result, determination of the aggregate revenue requirement on the basis of historical costs should just provide for financial capital maintenance: that is, should allow zero economic profit. As discussed in section **Error! Reference source not found.**, an access pricing approach that is consistent with cost recovery should deliver efficient outcomes over the longer term by creating the correct entry and investment incentives for both the access provider and new entrants.

Access prices based on historic costs may under- or over-recover efficiently incurred costs depending on other aspects of the regime and the markets in which the firm operates. One of the most common criticisms of the use of historic costs is that it may require access seekers to contribute to the costs of imprudent purchases made by the access provider. As a result, it is argued, the access provider would have little incentive to reduce costs and poor incentives for future investments. Therefore, access prices based on historic costs may be inconsistent with productive and dynamic efficiency.

Whether this criticism has much cogency is debatable. In essence, it amounts to saying that the accounting choice fully insures the firm against the risk of imprudent investment; this results in a moral hazard problem, as the firm "under-invests" in screening the risk associated with investments. However, whether this occurs will depend on the details of the way the regulation works. For example, if historic costs are used periodically to set the revenue ceiling for a fairly lengthy period – as in classical rate of return regulation with a long regulatory lag – the firm should have fairly strong incentives to minimise its operating costs. Historic costs used with price caps similarly reduce this problem. In respect of capital cost efficiency, historic cost regimes do, in some instances, provide for imprudent investments to be written out of the asset base, thus securing some degree of optimisation. The claim that the historic cost approach will, in and of itself, lead to productive efficiency losses when compared to known alternatives is at best unproven.

However, even without past imprudence, historic costs may result in inefficient access prices. Historic costs are usually calculated on the basis of accounting depreciation and fully distributed cost allocations, which can lead to inappropriate access prices. Accounting

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113 When inflation becomes high, price changes exceed quality improvements making historical costs too low. Distortion is also possible if price does not rise as fast as quality increases, but this is less likely to occur in practice.

depreciation approaches generally fail to account for the risk associated with asset stranding and hence access prices based on historic costs are unlikely to mirror the profile of access charges required to achieve full cost recovery over time. Rather, the regulated revenue ceiling will be too low in the initial years of asset life and too high in the years prior to scrapping. The fully distributed cost approach that is usually adopted in historic cost accounting means that the full benefit of economies of scope will be imputed to the access price of the service in question. This may discourage entrants from undertaking infrastructure investment to provide that service, even when they could do so more efficiently than the access provider on a stand-alone basis.[114] Finally, in periods of inflation, the historic cost approach to setting access prices is likely to underestimate the cost of capital maintenance, as asset values have not been indexed to CPI.

Competitive sustainability

The competitive sustainability of access prices based on the historic cost approach will depend on the extent to which historic costs reflect the efficiently incurred costs of the access provider. In periods of rapidly changing prices historic costs are unlikely to provide a good indication of the revenue required to meet the costs of investments going forward. In addition to potential problems associated with the size of the historic cost pools, the historic cost approach requires the cost pool to be translated into access prices. This step in the process requires further judgements by the regulator regarding the allocation of costs to different services and/or network elements. If the regulator allocates costs disproportionately to the access provider or access seeker, or allocates costs to services on which it is impossible to recover costs (due to competitive constraints or other regulation such as retail price controls), then even if the historic cost pool is the correct size, the resulting access prices will be inconsistent with competitive neutrality. This latter problem is of course shared by all of the cost-based methods.

Practical implementation

The chief advantage of the historic cost approach to setting access prices is that the information required is usually readily available in audited company accounts. Such information can often be tested against accounts of the actual suppliers and other comparable transactions that took place in the same period under similar circumstances[115]. These factors make implementation of cost estimation relatively simple and transparent.

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114 Note, however, that historical cost is not the only valuation methodology that makes some use of essentially arbitrary cost allocations. FDC is also often used in replacement cost and TSLRIC approaches.

115 Although this may not always be the case, especially for firms with investments made many years ago, under Government ownership and with less stringent accounting standards. In these cases, historical cost information may be unavailable.

Regulatory discretion

As the historic cost approach relies on information in the firm's accounts, it avoids the need for numerous assumptions in areas that the regulator is likely to have insufficient information or expertise such as network design and dimensioning principles, the appropriate level of operating and maintenance costs associated with the provision of service and the efficient allocation of common costs. Therefore, the historic cost approach reduces regulatory discretion and hence the likelihood of regulatory error.[116]

7.2.4 Replacement cost

The replacement cost approach (sometimes referred to as the depreciated replacement cost or the depreciated optimised replacement cost approach) to setting access prices is an extension of the historic cost approach. While the starting point of the methodology is the historic cost accounts of the access provider, these costs are indexed to overcome some of the problems associated with the historic cost approach. Basically, the total historic asset costs in the accounts with a positive written down value are indexed using asset specific indices to calculate the current cost of the actual network.

Economic efficiency

The replacement cost approach overcomes many of the problems usually associated with historic costs in that it takes account of the price changes of assets that have occurred since their purchase date. The indices used to calculate replacement costs account for changes in the price of assets due to inflation and technological obsolescence. If the indices are available for each asset or asset group then the application of indices to historic costs should provide a good approximation of the value of the assets today. Under this approach the optimisation of the network is achieved through the indexing process as any advances in technology which lower costs should be captured in the form of declining prices for older assets – that is, the price of old assets should fall over time in line with the price of any alternative, lower cost assets that become available. Therefore, even in periods of rapidly changing prices the replacement cost approach should provide a good indication of the cost that would need to be incurred to replace the firm's assets today. However, if the historic costs of the regulated firm already account for the declining price of replacement assets, through more rapid depreciation for example, then the application of asset-specific indices will underestimate the replacement cost of the firm's assets. Where possible, an adjustment for this will have to be made.

Other forms of optimisations can also be performed in a replacement cost approach by removing from the historic asset base, investments that are considered imprudent. As the replacement cost approach involves a re-estimation of the whole asset base, it is also possible

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116 Recent US court decisions seem to have been influenced by these aspects of using historical costs, see *Iowa Utilities Board, et al. v Federal Communications Commission and United States of America* No. 96-3321 (8th Circuit, 18 July 2000).

to use alternative profiles of depreciation that may be considered more appropriate than the historic accounting (usually straight-line) approach.

Competitive sustainability

Unlike the historic approach, access prices based on the replacement cost approach are likely to provide a better indication of the revenues required going forward to meet the costs of new investments as they reflect the capital maintenance costs of the assets today. This is especially so when technological change or price inflation are important.

When investors seek to maintain their financial capital intact,[117] it is necessary and sufficient that over the life of each investment, the initial actual capital outlay is completely recovered through depreciation charges and that in addition the investor is permitted to earn its actual weighted average cost of capital on the written down historic cost valuation of the investment.

Many businesses (including Telstra) have a different goal as they *de facto* have a perpetual obligation to provide service.[118] In this circumstance, the regulatory contract is one that allows and obliges investors to maintain their operational capability intact. If real replacement costs of the primary utility assets are rising over time, then simply maintaining financial capital intact will not be sufficient. The future liability (to replace assets when they wear out) will exceed the future asset value (the historical financial capital). It is this case which motivates the use of current cost valuation methods. It does not necessarily follow that today's utility prices must rise if asset replacement costs rise today. It is only strictly necessary that the investor be confident of being able to afford to replace assets when it becomes necessary to do so.

Appropriately implemented, replacement cost valuation can ensure that this constraint – that lifetime income is sufficient to warrant asset replacement – is met.

The optimisation included in the replacement cost approach also ensures that access seekers do not incur the costs of inefficient investments made by the access provider. In terms of the

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117 Accounting theory distinguishes two concepts of income maintenance. The first, generally referred to as *financial capital maintenance*, defines the activity cycle as "cash to cash", and broadly accounts for changes in the value of the funds owners have made available to the entity. The second, referred to as "*physical*" or "*operating*" *capital maintenance*, views the activity cycle as "physical unit to physical unit", and accounts for changes in the cost of providing a specified level of service potential. The choice between these has important implications for the treatment of changes in asset prices. In particular, in most systems based on financial capital maintenance, changes in asset prices flow into the income statement, and are treated as holding gains and losses. In contrast, under physical capital maintenance, changes in asset prices do not flow into the income statement but rather are treated as solely affecting the balance sheet.

118 It is not strictly necessary for the obligation to be perpetual. In practice it only needs to endure longer than the physical life of the primary assets.

ability of access seekers to compete, access prices based on replacement costs should allow access seekers that are at least as efficient as the access provider to compete effectively so long as the relevant retail prices set by the access provider pass an imputation test based on replacement costs.

Like the historic cost approach, calculating access prices based on replacement costs is a two-step process. Therefore, even if the replacement cost pools are consistent with maintaining the firm's operational capability, the translation of these costs to access prices will only allow these cost pools to be fully recovered if the access prices are competitively neutral.

Practical implementation

Like the historic cost approach, the replacement cost approach has the advantage of starting from a set of testable cost information in the form of historic accounts. However, the replacement cost approach includes some additional complexities such as identifying and collecting the relevant indices, determining whether assets should be excluded from the optimised asset base and deciding on the appropriate approach to estimating depreciation costs. Moreover, the practical implementation of this approach poses difficulties as a result of the adjustments that need to be made to the firm's historic regulatory accounts.

Regulatory discretion

The replacement cost approach requires limited regulatory discretion as the cost base is determined largely by the historic cost accounts as are cost allocation issues. However, there remain some issues on which the regulator must make a judgement such as adjustments to the asset base for optimisation and translating the resulting cost pools into access prices. As a result, more discretion is required than when historical costs are relied upon.

7.2.5 Total service long run incremental cost

TSLRIC or TELRIC are access-pricing approaches that attempt to estimate the costs that an efficient operator would incur if it were to provide the entirety of the service (element) today. The necessary costing procedure involves defining and designing a hypothetical network, assessing the costs of supplying the service or element in that network and then translating those costs into access prices.

Economic efficiency

It is has been claimed by the ACCC that access prices based on TSLRIC will:

- encourage competition by promoting efficient entry and exit in dependent markets. If TSLRIC reflects the cost a vertically integrated supplier would need to recover from supplying services to its own downstream operations to remain viable, then TSLRIC will encourage the entry of the most cost efficient firms in dependent markets;

- encourage economically efficient investment by providing a normal commercial return on efficient investments in infrastructure and by ensuring that decisions to invest in by-pass infrastructure will be based on the relative resource cost of doing so;

- promote allocative efficiency by signalling the long-term value of the resource embodied in the service;
- provide incentives for the access provider to minimise the cost of providing access;
- promote the legitimate interests of the access provider by allowing access providers to fully recover the costs of producing the service; [119] and
- protect the interests of access seekers by inhibiting the access provider discriminating in favour of one access seeker over another and hence the ability of an access seeker to compete in dependent markets will be based on the quality and cost of its operations relative to its competitors. [120]

While in principle a properly and competently constructed TSLRIC estimate could produce some or most of these outcomes, the manner in which the ACCC has estimated TSLRIC in practice (see below) suggest that this approach is not suitable for estimating a single access price.[121]

Competitive sustainability

TLSRIC, as with other optimised cost approaches, includes a contribution towards common costs.[122] So long as the implementation of the approach allows the access provider to fully recover these common costs then the approach should be consistent with the competitive sustainability criterion. Further, as TSLRIC is supposed to measure efficient costs, then access prices based on such an approach should allow efficient access seekers to compete effectively with the access provider. However, it is clear that a TSLRIC methodology that results in a revenue ceiling that is below actual costs will likely distort competition.

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119 This is not necessarily true. See Laffont and Tirole, 2000, *Competition in Telecommunications*, MIT Press, Cambridge, MA, pp. 76 ff.

120 This confuses using TSLRIC as a means of establishing the costs to be recovered, and the setting of pricing rules base on such costs. Many pricing rules may be discriminatory, including many that seem to treat all entrants equally. For example, which rule treats entrants equally—one that divides TSLRIC by total minutes and sets a per minute price on this basis, one that does the same thing for calls, one that does the same thing for customers? Each of these rules will benefit carriers of a particular type, and hurt carriers of a different type, and as result would lead to very different sets of entrants.

121 See also H Ergas, 1999, 'TSLRIC, TELRIC and other forms of Forward-Looking Cost Models in Telecommunications; A Curmudgeon's Guide' NECG mimeo, www.necg.com.au for a fuller discussion of some of the issues involved.

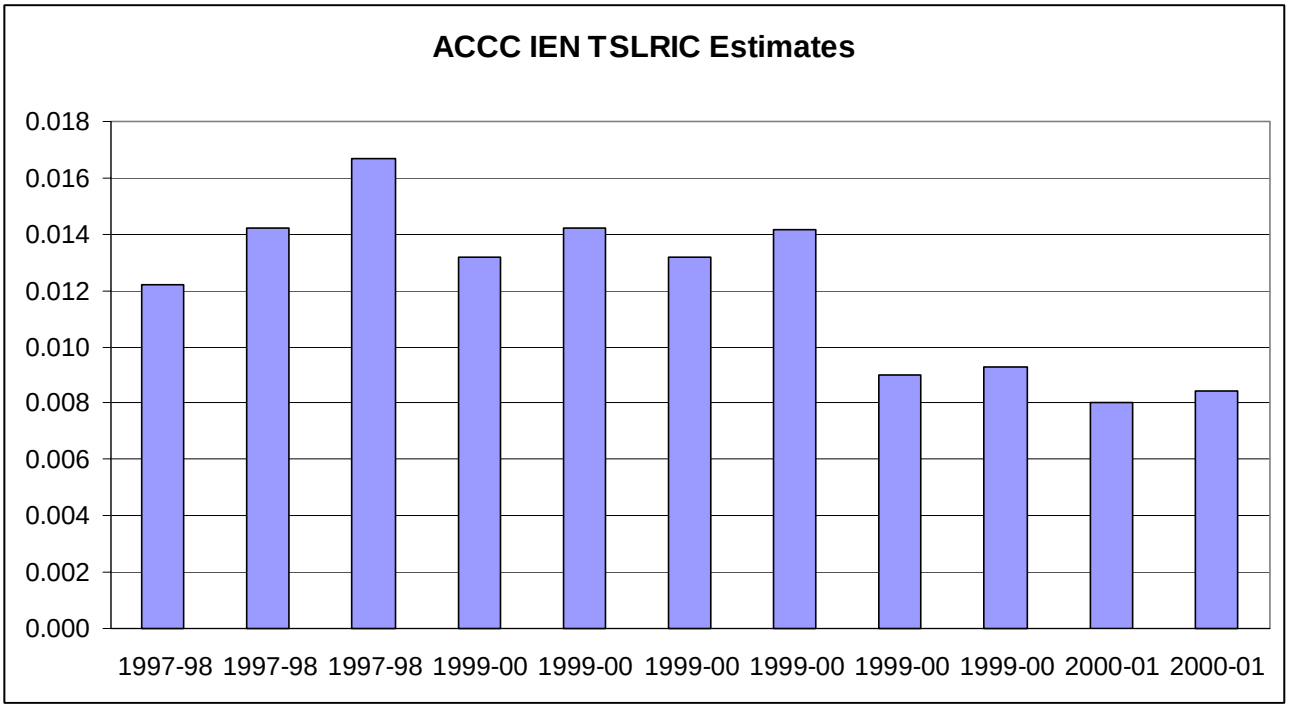
122 Formally, TSLRIC and TELRIC both only allow contribution to any costs common to, respectively, the total service or total element under consideration. However, in practice, for example, at the FCC and the ACCC, some additional allowance for broader overheads is also allowed—sometimes called "TSLRIC/TELRIC+".

Practical implementation

The estimation of TSLRIC requires literally hundreds of assumptions, many of which will never be tested and others that require careful judgement. The initial estimation of the relevant cost pools requires numerous assumptions including defining the relevant increment, network dimensioning parameters, sources of cost estimates, cost allocation rules, the approach to estimating depreciation and the parameters to be used in the WACC. Then it is necessary to determine how total annual costs should be allocated to different services to determine access prices.

Regulatory discretion

Reliance on a single TSLRIC estimates, makes this approach extremely vulnerable to regulatory discretion. For example, the figure below illustrates the ACCC's various estimates of the TSLRIC of PSTN call conveyance from 1997-98 to 2000-01. Because of a number of inappropriate judgment decisions made by the ACCC in implementing TSLRIC, the access price has been set within a wide range of possible values.



Sources: Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Draft Report, 19 January 1999. Assessment of Telstra's Undertaking for Domestic PSTN Originating and Terminating Access, Final Decision, June 1999. Interconnection Charges and Telstra's Access Deficit, Discussion Paper, September 1999. A Draft Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services, April 2000. A Report on the Assessment of Telstra's Undertaking for the Domestic PSTN Originating and Terminating Access Services, July 2000.

While it is possible to estimate a range of TSLRIC estimates, based on set of reasonable lower and upper bound assumptions and parameters, the ACCC's approach has been to estimate a single number based on a selection of assumptions and parameters. The ACCC's rejection of all higher values based on its single TSLRIC estimate would only be appropriate if the

ACCC's TSLRIC estimate was the reasonable upper bound of TSLRIC. An examination of some aspects of the ACCC's application of TSLRIC shows that this is not the case.

For example:

- The ACCC uses network provisioning rules that are inconsistent with Telstra's actual provisioning rules, extremely low by international standards and which would make it extremely difficult to meet the customer service guarantees imposed on Telstra.

- The ACCC's approach to allocating shared trenching costs to third parties (ie Optus and Foxtel) is to assume that costs are shared equally between the parties using the trench. This assumption is inconsistent with economic principles and commercial realities. In practice, Telstra can only charge third parties for trench space on the basis of their willingness to pay, which is determined by the cost of alternatives (such as satellite options for PayTV).

- The ACCC also allocates costs to Telstra's local call services that exceed the price-cap on local calls, requiring Telstra to bear a greater burden of common costs than its competitors.

- The ACCC ignores the risk of asset stranding in both depreciation and its calculation of the WACC, which distorts the build/buy options of new entrants towards buying access as it allows them to avoid the costs associated with risk.

A TSLRIC estimate based on these assumptions is, in Telstra's view, very likely to lead to significant economic efficiency losses.

Overall, TSLRIC (and TELRIC) can perform well against the efficiency criteria in principle. However, in practice this approach has not been well implemented. Regarding the structure of access prices, TSLRIC has the potential to allow for efficient recovery of common costs and for price differentiation. As the first step in TSLRIC involves estimating the total cost pools associated with supplying the relevant service, any number of methods are available to allocate these costs. The TSLRIC approach also provides a good basis for setting different tariffs to different access seekers. For example, if an access seeker was willing to enter into a long term contract then the risk factor included in the TSLRIC estimate could be lower than for a customer that wants a very short term contract.

7.3 Non-cost based access prices

7.3.1 Efficient component pricing rule

While ECPR has been categorised as a non-cost based pricing rule, it is possible that access prices based on ECPR will be consistent with cost. However, the distinction is made because this approach does not involve estimating the wholesale costs of the service directly.

Under the ECPR, the access provider's price for the essential input service should be equal to the "the input's direct per-unit incremental cost plus the opportunity cost to the input supplier of the sale of a unit of input."[123] The relevant opportunity cost is generally defined as the price of the final retail service minus the incumbent's long run incremental cost (LRIC) of supplying that service. In other words, under the ECPR, the incumbent is entitled to recover from new entrants all the net revenue that it would have obtained at existing retail prices had it continued to provide all of the final service itself.[124] The price is set by subtracting from the retail price those costs avoided in retailing by the incumbent, less any costs the incumbent must additionally incur to provide the interconnection services. No estimate of wholesale costs is required.

Economic efficiency

The ECPR can encourage efficient outcomes, but only when final (downstream) prices are themselves optimally regulated.[125] This is particularly a problem when the regulator is seeking to use interconnection policy to move away from final price regulation and toward competition in downstream markets. It is true, as with all the other approaches, discussed here, that the incentives generated by the ECPR need not always be fully optimal. For example, when adequate price discrimination is not possible the incumbent's access prices are likely to induce inefficient bypass. Similarly, if retail prices are inefficiently high, then entry that raises production costs can actually increase economic efficiency if it reduces final prices; [126] if consumers benefit from the introduction of a new service, then entry may be socially justified even if the entrant is a less efficient producer than the incumbent;[127] and when firms can vary both quality and price, the ECPR can lead to sub-optimal outcomes.[128]

Further problems arise when retail price regulation holds the initial retail price to levels that are below costs. In this case, the ECPR access price is likely to distort outcomes, notably in terms of competition in the final market, as access seekers will obtain the service at a lower cost than the access provider. In addition, ECPR is likely to be inappropriate, or at least extremely difficult to implement properly, when the regulated service is priced at the retail

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123 Baumol and Sidak, 11 Yale J. on Reg. at 178.

124 "Net revenue" for this purpose includes covering any foregone scale and scope economies. As a result, under ECPR, the access price can in some cases be higher than the retail price.

125 Most other difficulties associated with getting efficient in-period prices are common to all the cost-to-price approaches considered here. For example, knowing avoided costs does not indicate a price one should charge on interconnection, only the effective margin between that price and retail prices. In general, a very wide range of prices can be found which supply the required margin.

126 Economides and White, 1995.

127 Laffont and Tirole, 1994.

128 Ergas and Ralph, 1996.

level to secure revenues from other services. For example, in Australia access providers set the retail price for local calls at a low level to secure revenues from the customers' other services such as STD, IDD, fixed to mobile and data services. Unless ECPR is adjusted to take account of such commercial loss-leading initiatives, by including the revenues from cross-selling opportunities in the starting price, then this approach will not deliver efficient outcomes.

Competitive sustainability

ECPR provides appropriate signals for competitive entry only when the starting retail price is efficient. For example, if the starting retail price is below cost then entrants will not face the appropriate build/buy decision as they can use the access provider's network below cost rather than deploying their own infrastructure, even when the latter is more efficient.

However, if ECPR is applied correctly than it can provide reasonably good entry signals in the retail market as it ensures an efficient entrant can compete with the incumbent in that market.[129] Under it, a more efficient entrant can claim the difference between its costs and those of the incumbent's as profit. Further, the incumbent can be expected to recover its costs if it is efficient and if the initial price has not been forced by regulation to levels that are below long-term costs.

Practical implementation

Unlike the cost-based approaches discussed above, ECPR does not require the translation of input cost pools into access prices; rather, access prices are estimated from retail prices less the incremental cost of retailing to the access supplier. Arguably, this reduces the level of complexity and discretion involved with its implementation (since the incremental costs of retailing are usually considerably easier to estimate than the costs of the provision of originating and terminating access). However, once the incremental costs of retailing are estimated, these must be translated into a "price" that is deducted from retail prices.

Practical implementation of ECPR can raise other substantial difficulties. For example, in Australian telecommunications the ACCC has set pricing principles for the declared local carriage service on the basis of ECPR. However, the starting retail price of local calls is capped by price controls to 22 cents per call, which is below the ACCC's estimate of the efficient cost (that is, TSLRIC) of supplying the service. Applying ECPR to an inefficient starting price creates substantial economic inefficiencies.

The ACCC's approach necessarily requires Telstra to sell local calls to its competitors below cost, without allowing the shortfall to be recovered elsewhere, which is inconsistent with competitive neutrality. Access seekers will be discouraged from deploying their own infrastructure to provide local calls as they can purchase these on a resale basis below the

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129 This is why the imputation test, which is very like the ECPR, is a valuable tool for testing whether a price squeeze has occurred. It is not concerned with setting any price, but rather with whether the margin between retail and wholesale prices allows efficient competition.

efficient level of costs from Telstra. Therefore, productive and dynamic efficiency will not be encouraged.

This approach also undermines local call competition. Telstra has no incentive to lower standard local call prices as any reductions will flow through to its competitors and Telstra will be required to sell local calls further below cost. Given that local calls are used as a loss leader, the starting point for the ECPR should be the price cap (22 cents) rather than Telstra's retail price.

The ACCC also proposes to deduct average retail costs from the starting retail price, which is inconsistent with a recent US Court decision finding that avoided costs should be used in any such calculation to ensure that the access provider is indifferent between selling at the retail and wholesale level.

Regulatory discretion

In principle, one of the major advantages of ECPR is that it allows removal of input pricing decisions from the hands of the regulator. Instead, the regulated firm can set these prices subject to meeting the ECPR's requirements, and compliance can be tested *ex post* by the regulator. As a result, if regulation of retail prices is considered more straightforward than input prices, then the ECPR has much in its favour.

While the application of ECPR does provide less scope for regulatory discretion than some other access pricing rules, it certainly does not prevent it. For example:

- the regulator must still determine the appropriate starting price when more than one retail price exists in the market and the regulator must determine the appropriate level of retail costs to deduct from this starting price, which could be very low if an avoided cost approach is adopted or substantial if an approach such as the ACCC's average retail cost methodology is used; and

- the regulator must also make decisions about the market in which the service is supplied, as this is the appropriate level of aggregation at which to estimate costs and revenues. This can have an important effect on whether prices are considered consistent with ECPR or not. For example, it is relatively easy to find a violation of ECPR by taking a very narrow perspective—one can always find a phone call to a remote location for which the retail price probably exceeds the avoidable cost of that call. While this would be nonsensical, since no firm offers that type of call separate from a broader call bundle, the regulator must make choices about the appropriate arena of competition and this necessarily introduces latitude for discretion.

7.3.2 Bill and keep

An alternative non-cost based access pricing methodology is "bill and keep". Under pure bill and keep compensation arrangements there are no monetary transfers in respect of traffic exchanged between two networks. Instead, each network recovers all of its costs from its own end-users directly. The approach, also called "sender keeps all", is extremely simple and transparent and requires relatively little regulatory oversight. However, it does have some efficiency costs, and dealing with these increases the complexity of the approach. It is

also important to note that bill and keep does not provide a solution to access pricing where an access seeker uses originating ***and*** terminating access on an access provider's network to supply services. Bill and keep is only feasible for the case where one access network provider wishes to interconnect with another (two-way interconnection), and not for the case where, for example, a long distance service provider needs to interconnect with an access provider (one-way interconnection).

Economic efficiency

Bill and keep is equivalent to LRIC pricing if the LRIC of a unit of traffic is zero for both networks. When both networks have zero traffic sensitive costs, as could be the case for off-peak traffic or when the cost of monitoring and billing traffic flows exceeds the distortions caused by failing to do so, a sender keeps all arrangement provides for at least in-period allocative efficiency.[130] It may not be satisfactory when such traffic (either directly in the wholesale market, or indirectly in the retail market) must make a contribution to overall costs beyond those incurred at the margin. Bill and keep in these circumstances could undermine carriers' capacity to recover total costs, thereby deterring efficient investment in infrastructure. For example, for peak period traffic, the incremental cost of capacity is not close to zero, and "sender keeps all" arrangements are likely to promote inefficient use of, and deter efficient investment in, infrastructure.

To see this, suppose that the incremental cost of an additional unit of capacity is positive, but that both networks adopt bill and keep. Several distortions are likely to result.[131] Firms will set retail prices below the incremental cost of calls as they face termination charges that are below true cost. This below-cost access to termination services also provides arbitrage opportunities to firms that are able to readily alter their aggregate traffic profiles. Relatively small networks, for example, can target customers that make a lot of outgoing calls (for example, telemarketers). If the net effect of this is to "unbalance" their traffic profiles so that

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130 Dynamic efficiency is less likely to be generated by a bill and keep approach, though it can be. This fundamentally depends on the degree to which it allows firms to free-ride on infra-marginal investments made by other firms.

131 These distortions arise whenever below-cost interconnection charges are set, and in terms of allocative efficiency losses, are similar even to the distortions generated by above-cost prices (except output is too low in the latter case, rather than too high). In all of these cases, the fundamental problems are: (1) that networks are unable to charge consumers prices that reflect costs; and (2) the calling externality. For example, outbound calls can have different costs, but regulated call averaging or transactions costs often prevents retail prices from reflecting these. Even more importantly, it is usually very difficult for carriers to charge the final customer for inbound calls. These difficulties are worsened by the presence of market power and the calling externality. In the case of the former, regulation may be required to prevent a failure of the interconnecting parties to optimise over the market in the broad sense (a kind of double-marginalisation referred to as the tragedy of the anti-commons). In the case of the latter, price set to cost will not typically provide appropriate signals (for example, in the case when the call recipient does not value the incoming call at its cost, but the valuation of the call by call maker and call receiver in sum exceeds the cost of call).

they become a net originator of calls that pass through the point of interconnection, they effectively receive a subsidy from other networks. Finally, networks may under-invest in network development, since they know that they can use the rival's network for free, and equally they do not get the full benefit of any investments as their rivals face no charge for using their network. Such behaviour is commonplace in the internet, where bill and keep has been the normal practice between network providers (this is known as peering).[132] In telephony markets, firms will be discouraged from providing customer access where it is relatively difficult to recover the costs of this directly from the purchasing consumers, even when provision would be efficient (due to access and calling externalities).

It should be noted that these effects directly parallel the situation when termination prices exceed the cost of termination. In this case, entrant networks seek out call-sinks, that is, customers that are net receivers of calls, such as ISPs. The entrant profits from the difference between the termination charge and the termination cost. Although the preferred customers are different (call sinks compared with call generators), entrants have similarly biased investment strategies in this case.

Modified forms of bill and keep are used in other jurisdictions, including California and New Zealand. Typically, these agreements specify constraints on the extent to which call imbalances will continue to attract no charges. For example, the recent agreement between Telecom NZ and Telstra-Saturn, which provides for bill and keep interconnection, includes a positive per minute rate for terminating traffic at call sinks (defined as numbers with a sufficiently large traffic imbalance in favour of incoming calls). Similar arrangements exist in the mobile interconnection agreement between Vodafone NZ and Telecom Mobile, and in Californian agreements.

These constraints on bill and keep are necessary to confine the right to zero termination rates to carriers with whom a reciprocal arrangement is available. In particular, they prevent either party to the agreement from refiling bypass traffic, which would otherwise not qualify for zero termination rates.

Competitive sustainability

Bill and keep will only be consistent with competitive sustainability, in the sense that it is competitively neutral. This is so for traffic between similar networks (where similar means customers on average over the networks have similar calling patterns) and the cost of origination and termination on average is similar. In these circumstances, traffic flow between the networks and the costs incurred by each network to carry that traffic are similar.

Practical implementation

Under bill and keep, no practical regulatory implementation is required as no access prices need be determined.

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132 See Little, I and Wright, J (2000), "Internet Peering and Settlement: An Economic Analysis," *Journal of Regulatory Economics*, Vol. 18 (2), pp 151-74.

Regulatory discretion

Bill and keep has considerable merit when regulatory costs are considered, at least for two-way interconnection. There is no need for the construction or use of forward-looking cost models, and the risks associated with regulatory discretion are avoided. These benefits are not absolute, however, since regulators are likely to remain interested in the price of by-pass (one-way interconnection) access, which has no such convenient solution. One issue that would need to be faced if bill and keep were to be considered more seriously concerns the criteria that would need to be applied to firms seeking this arrangement. Clearly, a bypass operator should not qualify for bill and keep, since there is no reciprocal termination service being provided. It may also be reasonable to exclude small network operators from bill and keep on the grounds that they are more easily able to alter their traffic profiles. Alternatively, bill and keep might be made available to all carriers unless and until the traffic flowing between the networks was significantly out of balance.[133]

Thus, in general bill and keep is not consistent with efficient usage pricing and does not promote entry by efficient competing networks, however, at least for clear cases of two-way access between peers, practical implementation is simple and regulatory discretion is limited.

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133 Note that the exchange of traffic between small and large networks will be in balance if the probability of a call being made by and to any party on either network is the same.

Annexure A: Merits Review

Jurisdictional Analysis

In its most recent submission to the Commission, the ACCC claims that there is support for limiting the availability of merits review by reference to:

- Part IIIA-related regimes; and
- overseas jurisdictions.

These issues are considered in turn.

The first issue can be dispensed with quickly. The ACCC's attempt to rely on Part IIIA-related regimes to support its argument is simply misleading. It fails to observe that Part IIIA, the national access framework, provides a right to full merits review to the ACT from ACCC arbitration decisions relating to the terms and conditions of access to services declared under the Part IIIA provisions. The rights of affected parties to seek full merits review of ACCC decisions under that Part is made abundantly clear by legislative provisions stating that:

- *A review by the Tribunal is a re-arbitration of the access dispute*";[134] and
- *For the purposes of the review, the Tribunal has the same powers as the Commission*[135].

Thus, merits review under Part IIIA is in no way limited; rather, on appeal, the ACT is entitled to re-hear a matter as if it were the ACCC considering the matter afresh. The fact that state-based regimes may diverge from the principles enshrined in the national access regime does not derogate from the importance of merits review for ACCC decisions under Part IIIA. In short, the exception doesn't prove the rule. Indeed, in many cases, the limited exceptions are based on a very different set of facts that are not at all germane to telecommunications.[136]

EU and EU-based jurisdictions

In discussing the EU and EU-based jurisdictions, the ACCC has failed to draw the Commission's attention to the current *Proposal for a Directive of the European Parliament and of the Council on a common regulatory framework electronic communications networks and services*.[137]

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134 Section 44ZP(3) of the Act. Emphasis added.

135 Section 44ZP(4) of the Act. Emphasis added.

136 Furthermore, the more prescriptive nature of the Part IIIA-based regimes as compared with Part XIC (and Part IIIA), may reduce the scope for regulatory uncertainty and error; which form the very rationale for merits review.

137 European Commission, *Proposal for a Directive of the European Parliament and of the Council on a Common Regulatory Framework for Electronic Communications Networks and Services*, (2000/C 365

This draft Directive has been approved by the European Council of Ministers and is now before the European Parliament for final approval.

The preamble to the proposed Directive speaks to the very heart of the Commission's present review:

> "The existing legislative framework was primarily designed to manage the transition from monopoly to competition and was therefore focused on the creation of a competitive market and the rights of new entrants. It has been successful in achieving those aims. But in part because of the success of liberalisation at European level, the market is now changing with ever-increasing speed. This was foreseen by the current legislative framework, which required the Commission to review the operation of the Directives making up the regulatory framework in the light of developments in the market, the evolution in technology and the changes in user demand.
>
> The new policy framework needs to take account of these developments, in particular the convergence between telecommunications, broadcasting and IT sectors. It seeks to reinforce competition in all market segments, while ensuring that the basic rights of consumers continue to be protected. It is therefore designed to cater for new, dynamic and largely unpredictable markets with many more players than today."

This Directive, to which all relevant European nations will be subject, provides for full review on the merits. Article 4 of the Directive relevantly states that:

> "1. Member States shall ensure that a mechanism exists at national level under which a user or undertaking providing electronic communications networks and/or services has the right of appeal against a decision of a national regulatory authority to a body that is independent of government and the national regulatory authority concerned. The appeal body shall be able to consider not only the procedure according to which the decision was reached, but also the facts of the case. …
>
> 3. Where the appeal body is not judicial in character, written reasons for its decision shall always be given. Furthermore, in such a case, its decision shall be subject to review by a court or tribunal. …"

United Kingdom

Telstra notes that, under The Telecommunications (Appeal) Regulations of December 1999[138] - which came into force on 20 December 1999 - operators do have a right of appeal against a variety of decisions by the telecommunications regulator. Parties may appeal to the relevant court against certain decisions of the Secretary of State or the Director General of

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E/14), OJ C365 E/198, 19 December 2000 (available at: http://www.conformity-update.com/eu-framework-010105.pdf).

138 Statutory Instrument 1999, No 3180.

Telecommunications on grounds of error of fact, error of law, procedural error or other illegality.

Telstra has received advice that the regulations are broad enough to enable operators to appeal any type of decision and that this is precisely what has been done. Telstra understands that BT has been able to appeal major decisions to the former Monopolies and Mergers Commission and now the new Competition Commission.

New Zealand

The Telecommunications Bill 2001 (NZ) (the "Bill") – currently before the Commerce Select Committee for reporting by 27 August 2001 – similarly recognises the need for review of pricing determinations.

Clause 17 of the Bill provides for an access seeker or access provider to apply to the Commerce Commission for a determination of all or some of the terms on which the relevant service must be supplied. Subpart 4 of Part 2 of the Bill allows a party to a determination to apply to the Commission for a review of that part of the determination that relates to the price to be paid for the service. Clause 49 of the Bill sets out very broad powers and requirements as to the processes in reaching determinations. Clause 56 of the Bill provides for appeals to the High Court of New Zealand in respect of any such determinations.

Two key features of the proposed New Zealand regime are notable:

(a) even in the extremely light-handed regulatory environment in place in New Zealand, the importance of providing for full review rights has been recognised; and

(b) such review rights have been considered important, even though the Bill provides for a significantly more prescriptive approach to the pricing of access services and therefore might otherwise be thought to be less contentious than the regime operating in Australia.

United States and Canada

Contrary to the ACCC's general inferences, it is not unusual in North American jurisdictions to submit cases to a complete re-hearing when the prior result is considered to be invalid.

In *AT&T Communications of Ohio, Inc. v Public Utilities Commission of Ohio*, the Supreme Court of Ohio noted that appeals from the decisions of public utilities commissions are not unusual and that rules exist to deal with this possibility:

> "Appeals of commission decisions are subject to the standard of review contained in R.C. 4903.13, which provides: "A final order made by the public utilities commission shall be reversed, vacated, or modified by the supreme

> court on appeal, if, upon consideration of the record, such court is of the opinion that such order was unlawful or unreasonable."[139]

This standard, the Court held, has been consistently interpreted in case law and establishes that commission decisions as to questions of fact can be reversed by courts where there is not sufficient evidence to show that the determination is "manifestly against the weight of the evidence and is not so clearly unsupported by the record as to show misapprehension, mistake, or wilful disregard of duty."[140]

The ability to conduct full merits review is evident in United States statutes as well. In the portion of the Code of Federal Regulations governing the activities of the Federal Communications Commission (the "FCC"), parties that disagree with a decision may appeal directly to the FCC. For example, in the case of the standards-setting and certification process for telephone equipment, the FCC may conduct a *de novo* review of technical criteria when requested to do so by aggrieved parties.[141]

The Federal Power Act of 1920 (US),[142] which regulates the activities of the Federal Energy Regulatory Commission (the "FERC"), establishes that parties can apply for rehearing of orders:

> "… Until the record in a proceeding shall have been filed in a court of appeals … the [FERC] may at any time, upon reasonable notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any finding or order made or issued by it ..."[143]

The provisions of the Federal Power Act of 1920 (US) allow for some modification of the facts presented, if there is good reason for their exclusion in the first instance:

> "The finding of the [FERC] as to the facts, if supported by substantial evidence, shall be conclusive. If any party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for failure to adduce such evidence in the proceedings before the [FERC], the court may order such additional evidence to be taken before the [FERC] and to be adduced upon the hearing in such manner and upon such

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139 *AT&T Communications of Ohio, Inc. v Pub. Util. Comm.*, 728 N.E.2d 371 (S Ct Ohio, 2000), 376.

140 *AT&T Communications of Ohio, Inc. v Pub. Util. Comm.*, 728 N.E.2d 371, 376, quoting *MCI Telecommunications Corp. v. Pub. Util. Comm*. (1988), 38 Ohio St.3d 266, 268, 527 N.E.2d 777, 780.

141 Federal Communications Commission, Report and Order, CC Docket No. 99-216 (released December 21, 2000), http://www.fcc.gov/Daily_Releases/Daily_Business/ 2000 /db1228/fcc00400.txt.

142 16 USC §791-828c, 10 June 1920.

143 16 USC §825I(a).

> terms and conditions as to the court may seem proper. The [FERC] may modify its findings as to the facts by reason of the additional evidence so taken, and it shall file with the court such modified or new findings which, if supported by substantial evidence, shall be conclusive, and its recommendation, if any, for the modification or setting aside of the original order.[144]

In Canada, although determinations on factual matters by the Canadian Radio-television and Telecommunications Commission (the "Commission") cannot be challenged in an appeal:

> "… the Commission may, on application or on its own motion, review and rescind or vary any decision made by it or re-hear a matter before rendering a decision."[145]

Administrative Review Council Guidelines

The ACCC's submission on merits review further relies on the proposition that the telecommunications access arbitration process is such as to fall within the factors said to justify excluding merits review under the Administrative Review Council ("ARC") guidelines for review of administrative decision-making ("Guidelines").[146]

The ACCC's submission places very selective reliance on the Guidelines to reach a conclusion that, in Telstra's view, is not necessarily supported by the Guidelines. The ACCC's submission ignores the ARC's primary position:

> "As a matter of principle, the Council believes that an administrative decision that will, or is likely to, affect the interests of a person should be subject to merits review. That view is limited only by the small category of decisions that are, by their nature, unsuitable for merits review, and by particular factors that ***may*** justify excluding the merits review of a decision that otherwise meets the Council's test".[147]

There can be no doubt that a decision such as an arbitration determination under Part XIC meets the ARC's *prima facie* test - it clearly affects the interests of the parties. Furthermore, in Telstra's view, Part XIC decisions clearly do not fall within any of the categories that the ARC considers actually ***are*** unsuitable for merits review.[148]

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144 16 USC §825I(b).

145 Telecommunications Act, Statutes of Canada, Chapter 38, ss 64(5), 62.

146 Administrative Review Council, *What Decisions Should be Subject to Merits Review?*, July 1999 (available at: http://law.gov.au/aghome/other/arc/arcnew/guidelines.html).

147 As per footnote 146, paragraph 2.1.

148 As set out in Chapter 3 of the Guidelines.

The Guidelines set out factors that ***may*** justify excluding merits review, being grouped as follows: "factors lying in the nature of the decision", "factors lying in the effect of the decision" or "factors lying in the costs of the review of the decision".[149] Clearly, Part XIC decisions will not fall within any of the classes included within the first two groups.

The ACCC's submission asserts that Part XIC decisions appear to fall within one of the two classes included in the third group. However, the ACCC has not provided the Commission with the full text of that class. It reads as follows:

> "This exception covers decisions that are the product of processes that would be time-consuming and costly to repeat on review.
>
> Such processes include public inquiries and consultations that require the participation of many people. If review of the subsequent decisions was undertaken, the nature of the review process would be changed from the normal adjudicative decision-making process (of, say, the AAT), to a greatly expanded and time-consuming one.
>
> For example, the Council has advised that decisions made under the *Australian Heritage Commission Act 1975* to enter, or not to enter, a place on the Register of the National Estate would be inappropriate for external merits review, if the Act was amended to provide for those decisions to be made by a process involving public hearings".[150]

This example was intended to be illustrative of the class and follows the pattern used throughout the guidelines of highlighting the enunciated principle by reference to advice actually provided to the Government by the ARC. As such, the examples give better meaning to the text.

The Australian Heritage Commission Act 1975 (Cth) example highlights the type of case that the ARC had in mind in postulating a possible ground of exclusion. In that case it was proposed that decisions should be made only after public hearings in which it was expected that there might be potentially many thousands of persons who would wish to make submissions. Part XIC decision-making is clearly not of that nature - generally there are very few people involved (usually just two parties represented each by a small number of personnel).

The nature of the decisions at issue is qualitatively different to the example cited by the ARC:

- the issues involved in access disputes are significantly more complex and, therefore, there is significantly increased risk of arbitrary or poorly founded decisions occurring; and

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149 Chapter 4 of the Guidelines.

150 Guidelines, paragraphs 4.53-4.55.

- the issues are such that only a relatively small group of interested parties are able to contribute meaningfully to the debate. In such cases, the public hearings process may not draw to light, or indeed expose so readily to scrutiny, relevant and irrelevant considerations.

Part XIC decisions fail to meet the text even without reference to the example and, when regard is had to the example, can be seen to be of a clearly different class.

The nature of the decision-making task is entirely consistent with the ordinary adjudicative decision making process - that is, choosing between competing assertions or exercising expertise to settle on some position other than that proposed by either party. Decision-making by these processes is precisely the modus of the Administrative Appeals Tribunal or the ACT. ACT review of Part XIC decisions would not in any way change its normal decision-making role. Indeed, the assessment of cost and the settling of price and non-price terms and conditions is probably more akin to the normal adjudicative role than is the established ACT jurisdiction of reviewing authorisation decisions of the ACCC which involve often nebulous assessments of the public interest.

Finally, even if Part XIC decision-making did, *prima facie*, fall within the class to which the ACCC makes reference, it is clear that this would not mean that the ARC would recommend against merits review. The Guidelines state only that such factors ***may*** justify exclusion. It would be a matter for the ARC to then weigh up the factors for exclusion with those tending against exclusion.