

The Allen Consulting Group

Structural separation of Telstra — why it is needed, and what can be done

14 December 2006

Report to Competition Carriers Coalition

The Allen Consulting Group

The Allen Consulting Group Pty Ltd

ACN 007 061 930

Melbourne

Level 9, 60 Collins St

Melbourne VIC 3000

Telephone: (61-3) 8650 6000

Facsimile: (61-3) 9654 6363

Sydney

Level 12, 210 George St

Sydney NSW 2000

Telephone: (61-2) 9247 2466

Facsimile: (61-2) 9247 2455

Canberra

Level 12, 15 London Circuit

Canberra ACT 2600

GPO Box 418, Canberra ACT 2601

Telephone: (61-2) 6230 0185

Facsimile: (61-2) 6230 0149

Perth

Level 21, 44 St George's Tce

Perth WA 6000

Telephone: (61-8) 9221 9911

Facsimile: (61-8) 9221 9922

Brisbane

Level 9, 379 Queen St

Brisbane QLD 4000

Telephone: (61-7) 3221 7266

Facsimile: (61-7) 3221 7255

Online

Email: info@allenconsult.com.au

Website: www.allenconsult.com.au

Suggested citation for this report: Allen Consulting Group 2006, *Structural separation — why it is needed, and what can be done*, 14 December.

Disclaimer:

While The Allen Consulting Group endeavours to provide reliable analysis and believes the material it presents is accurate, it will not be liable for any claim by any party acting on such information.

© The Allen Consulting Group 2006

Contents

<i>Executive summary</i>	4
Chapter 1	7
<i>Introduction</i>	7
1.1 This report	7
1.2 A viable solution to address competition concerns	8
1.3 Structural separation – vertical and horizontal	11
1.4 Structure of this report	11
Chapter 2	12
<i>Competitive outcomes in Australia and lessons from other jurisdictions</i>	12
2.1 Introduction	12
2.2 Structural separation approaches in other jurisdictions	15
Chapter 3	24
<i>Vertical Integration and market power — theory and practice</i>	24
3.1 Introduction	24
3.2 Incentive effects	24
3.3 Telstra’s ability to act anti-competitively	25
3.4 Potential for increased market power in a changing telecommunications environment	30
Chapter 4	31
<i>Approaches to structurally separating Telstra</i>	31
4.1 Structuring separating Telstra	31
4.2 Second-best alternatives to structural separation	34
4.3 Costs of structural separation	35

Executive summary

The Australian telecommunications industry is at a turning point.

Telstra — the most integrated communications company in the world — is now fully privatised. It remains the major wholesale and retail supplier of telecommunications services providing local, national, long distance, international and mobile calls, dial-up and broadband internet, data, printed and on-line directories and pay TV (through its 50 per cent ownership interest in Foxtel).

No real competitive constraint on Telstra's behaviour has emerged. It continues to hold a dominant position in almost every telecommunications market, and appears likely to take a more aggressive stance now that it is fully privatised. Telstra's refusal to budge on its no-access policy on its new 850MHz network is an example.

Unlike some other integrated incumbents, Telstra remains consistently resistant to compliance with regulatory requirements. In its now privatised state, it appears likely to intensify its anti-regulation behaviour.

The government also has a new opportunity — given that the sale of a third tranche of government-owned Telstra shares, and the transfer of the residual to the Future Fund means that it is no longer presented with the conflicting incentives of an owner and regulator.

The idea to structurally separate Telstra is not a new one, but it is now more pressing than previously. The longer structural separation is put off, the less competitive telecommunications markets will become, particularly with Telstra fully privately owned. Previously missed opportunities to structurally separate Telstra support its continued dominance in almost every telecommunications market. This has reduced, or at the very least, delayed many of the benefits that stem from a vibrantly competitive market.

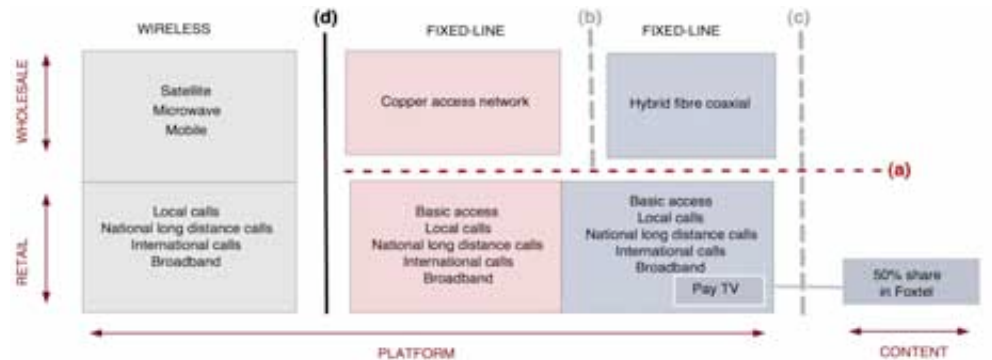
Behavioural approaches — such as accounting and operational separation — are inferior alternatives. These regulatory approaches may assist the regulator to detect and prevent discrimination but do not address Telstra's underlying incentive to restrict competition. The ACCC will still have an uphill battle to ensure non-discriminatory access. In contrast, structural separation works because it directly affects the incentives of the incumbent in a pro-competitive way.

A fully-privatised Telstra is likely to ramp-up its 'sabotage' behaviour. The economic literature uses this term to refer to delaying and disadvantaging tactics, i.e. undermining, vis-à-vis rivals. While such behaviour would be unlawful, it is an effective strategy — being difficult to observe and redress and costly to pursue. Detection of such anti-competitive behaviour will be made all the more difficult with bundled offerings becoming increasingly the norm. Structural separation can potentially reduce sabotage behaviour, as the incentive for it *only* occurs when the monopolist is integrated.

Experiences in international jurisdictions also demonstrate that structural separation is frequently the best solution to competition concerns in vertically integrated industries with contestable and non-contestable segments.

This report argues for a number of structural separation options that would result in a more competitive telecommunications environment. These options are illustrated in the figure below.

STRUCTURAL SEPARATION OPTIONS



Vertically splitting the wholesale and retail fixed-line elements, namely the copper access network, from the retail fixed-line business (*option a*) would create a competitively neutral environment by forcing the incumbent’s wholesale arm to deal with its retail arm (now separated) on the same terms that it deals with other retailers.

Selling Telstra’s Hybrid Fibre–Coaxial (HFC) network (*option b*) would introduce a new infrastructure competitor into the market. However, it is not sufficient to only sell Telstra’s HFC network — Telstra’s ownership of Foxtel should also be sold off at the same time (*option c*). This is because if Telstra’s HFC network is sold off but it continues to partly own Foxtel, Telstra will have every incentive to restrict the development of digitized services by the new buyer of the HFC network where that buyer would compete with services provided by Telstra. In so doing, a potential new source of competition in the future may therefore be diminished by Telstra’s ownership of Foxtel.

Telstra’s no–access policy on its 3G network means that it will be the only network provider capable of providing nationwide 3G services. This will almost certainly have a detrimental effect on competition in the mobile services market, felt especially in the corporate services market. Splitting Telstra’s mobile business from the rest of its businesses (*option d*) is aimed at not just achieving access to the network for competitors, but reducing the ability of Telstra to leverage the market power it possesses in the fixed-line market into the more competitive mobile services market by bundling mobile and fixed services.

Obviously, these are short-term costs in structurally separating an entity like Telstra. These costs are not insignificant. However, no change to Telstra’s vertically integrated structure will sustain Telstra’s dominance in telecommunications markets. The benefits of Telstra’s continued integrated status are likely to be largely privately captured, while the costs of this integration — greater regulatory scrutiny and reduced competition — are borne by the whole economy.

In an environment of continued Telstra integration, competition in Australian telecommunications may never fully realise its potential. A structurally separated Telstra offers the opportunity for a more competitive market with longer term sustained benefits in the form of better price/product offerings from a range of competitors, as well as less regulatory oversight. While an empirical analysis of benefits and costs has not been conducted in this paper, it appears likely that the benefits would significantly outweigh the costs, especially in the long run.

Chapter 1

Introduction

1.1 This report

This report examines structural separation of Telstra as a solution to today's competition concerns in the Australian telecommunications industry. It aims to provide a brief overview of the key issues involved in considering the structural separation of Telstra.

Many of the competition concerns are a result of Telstra's vertically integrated structure. Telstra has both the *incentive* (because of its vertical integration) and the *ability* (through its ownership of the essential elements of the telecommunications infrastructure) to favour its own interests by reducing competition in all markets that rely on its essential monopoly infrastructure as inputs. Telstra's ownership of multiple types of telecommunications services — fixed-line telephony, broadband, mobile telephony and pay TV — gives it the incentive and ability to leverage its dominance (which stems specifically from the fixed-line market) into other telecommunications services markets in a potentially anti-competitive manner.

This report argues that structural separation of Telstra (both vertical and horizontal) can offer the opportunity to fully realise the benefits from more competitive telecommunications markets. Unlike alternatives to structural separation, notably accounting and operational separation, structural separation of the incumbent is effective because it directly affects the incumbent's incentives. Separation of the incumbent's ownership of the essential monopoly input and business in contestable areas (that rely on the monopoly input), the incumbent owner will have less incentive to discriminate between any of the firms competing in the contestable sector. Separating the incumbent horizontally will remove its ability to leverage its market power from a retail market to another.

It should be noted from the outset that neither vertical integration nor horizontal integration are *necessarily* anti-competitive. If the integrated firm has no market power, integration can be benign, and indeed efficiency-enhancing, as the telecommunications service provider can take advantage of economies of scope or scale and consumers can be offered bundles of services from the same provider. Problems arise when the vertically integrated provider has market power as its incentives are usually to restrict competition.

The report also explores the experience in overseas jurisdictions with both the voluntary (United Kingdom and New Zealand experience, for example) and non-voluntary (United States and some members of the European Union, for example) separation approaches of incumbent telecommunications companies. These can provide useful lessons for the regulation of Australian telecommunications. International experience to date suggests that there is a preference to separate contestable segments from non-contestable segments of the market. As stated by European Commissioner Reding:¹

I believe that functional separation, which is a specific form of separation in the large sense as just described, could indeed serve to make competition more effective in a service-based competition environment where infrastructure-based competition is not expected to develop in a reasonable period.

1.2 A viable solution to address competition concerns

Structural separation of Telstra has been considered in the past as a means to address the competition concerns in Australian telecommunications,² but it has never been implemented. For various reasons, government telecommunications policy has not favoured this reform approach with the preferred policy instruments for promoting competition being access to bottleneck infrastructure (via Part XIC of the *Trade Practices Act 1974*) and policing of anti-competitive conduct (via Part XIB of the *Trade Practices Act*) after that behaviour has taken place.³

However, the fact that structural separation has not been tried in the past does not make it irrelevant today. In fact, the opposite is the case. Nearly a decade after the passage of the *Telecommunications Act 1997*, which put in place the basic structure of the Australian telecommunications industry and the policy paradigm for promoting competition, Telstra is still dominant.⁴ Indeed, Telstra is now publicly and aggressively challenging the very basis of the regulatory regime in a bid to make itself even more dominant.

Telstra is now a fully privatised company and any constraints on its conduct that might have existed when it was partly government-owned no longer exist.⁵ As a policy matter, structural separation should certainly be ‘on the table’ as it is in many other countries. In fact, the need to consider structural separation in Australia is more urgent than ever because:

¹ Commissioner Viviane Reding, Speech at the ECTA Conference 2006, ‘From Service Competition to Infrastructure Competition: the Policy Options now on the table’, 16 November.

² See, for example, ACCC 2003, *Emerging market structures report*, June.

³ Indeed, in the early 1990s, when the first steps to liberalise the Australian telecommunications market took place, government policy saw the integration of then Telecom and OTC, to form what is now Telstra. This was a major policy error.

⁴ One important exception (to date) is mobiles, where Telstra has the largest market share but it is not dominant. However this is the exception that proves the rule: mobiles are the most competitive segment of the telecommunications industry because the major players all have their own infrastructure, and all are interdependent on each other for call termination. In virtually all other market segments, the relationship between Telstra and the other carriers is dependence. They all rely on access to Telstra’s infrastructure (largely built when it was the government-owned monopoly) to provide services to their customers and are further reliant on Telstra’s good graces to keep the quality of those services at an acceptable standard.

⁵ While a significant proportion (30 per cent) of shares in Telstra are held in the Government’s Future Fund, this shareholding will not be used by the Future Fund to direct Telstra to comply with its regulatory obligations.

- *the urgency for structural separation is greater now* — opportunities to structurally separate Telstra were available in 1997, 2003 and 2005 but missed.⁶ The opportunity is available again, but the stakes are higher. Previously missed opportunities have meant continuing dominance of Telstra in almost all telecommunications markets. Competition in many telecommunications markets has been slow to materialise, with consumers only now realising some of the benefits in some markets that eluded them for so many years.⁷ The longer structural separation is put aside, the less competitive telecommunications markets will become, particularly with Telstra fully privately owned;
- *the government is no longer faced with conflicting incentives* — the sell-off of the rest of the government's shareholdings in Telstra means that it no longer faces conflicting incentives as owner and regulator;
- *structural separation is considered to be a viable option now* — The European Commission has clearly advocated the structural separation of vertically integrated incumbents as reflected in several speeches by Commissioner Reding. In her most recent speech on 4 December 2006, Commissioner Reding stated that:⁸

The key to this process [structural separation] seems to be defining incentives so that the separated network operator functions independently from its parent. The attraction of such solutions is that the risks for investors in new infrastructures would be more clearly demarcated. There would be greater legal certainty and, if the separation would be implemented properly, access would be assured for all players in the service markets.
- *accounting and operational separation are inadequate means to effectively regulate the incumbent* — these approaches attempt to modify the behaviour of the regulated incumbent, but since they do not change its incentives, are far less likely to be successful than structural separation, which does change its incentives;⁹
- *there is still no real competitive constraint on Telstra's behaviour in most telecommunications markets* — the state of competition in most telecommunications markets have not changed significantly. This situation is unlikely to change in the near future without structural separation. In fact, given Telstra's reluctance to comply with its regulatory requirements to date and antagonistic relationship with the regulator, it is likely that it will become increasingly difficult to ensure Telstra's compliance with regulatory requirements;

⁶ Notably, at the introduction of competition (1997), leading up to the sale of the first tranche of government owned Telstra shares (2003) and the government's review of telecommunications policy that resulted in recommending operational separation (2005).

⁷ Facilities-based competition in broadband is now beginning to emerge with the unbundling of the local loop, a regulatory reform that was, and continues to be, strongly opposed by Telstra.

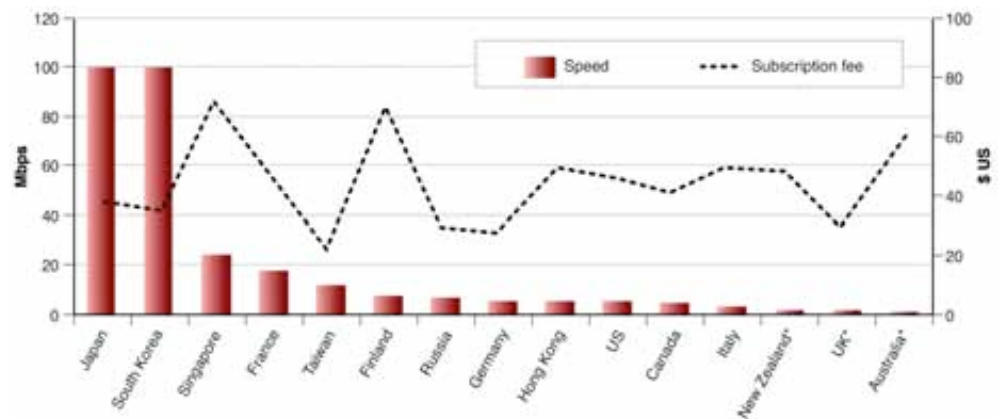
⁸ European Union 2006, Speech by Commissioner Viviane Reding at the Conference of the International Telecommunications Union (ITU), Hong Kong, 4 December 2006, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/772&format>, Accessed 7 December 2006.

⁹ Operational separation is a broad term which can in some circumstances include approaches that are close to structural separation or not, depending on the details. In the UK, BT has created a separately managed but not separately owned organisation, Openreach, for the provision of access. What is important about the British experience is that BT appears to have come to a realisation that this approach is in its long term interests. In contrast, there is no evidence that Telstra has come to such a realisation.

- *there is an increasing combination of changing technologies and sophisticated bundling, which creates difficulties for the detection of anti-competitive behaviour* — the variety of platforms able to provide similar services is increasing. With more numerous types of bundled offerings, it will become increasingly difficult for the regulator to gather evidence of anti-competitive behaviour given the complexity of a vertically integrated company. In such an environment, sabotage behaviour (delay and disruptive tactics) is likely to thrive. A structurally separated incumbent would allow for definite delineation of functional areas of the business, improving the transparency of allocation of costs and therefore detection of anti-competitive behaviour; and
- *the effect of restricted competition on broadband service offerings in Australia* — increased broadband competition has the potential to act as a key driver of price reductions and service improvements by the incumbent and thus to deliver real consumer benefits.¹⁰ In Australia, Telstra has the dominant share of the broadband market in Australia and its broadband prices and service levels, despite improvement over time, are still relatively poor when compared with that of incumbents in other countries. This is illustrated in Figure 1.1. Structural separation of Telstra will bring competition to more contestable segments of the telecommunications markets and in turn create incentives for the incumbent and other competitors to offer better price/product offerings.¹¹

Figure 1.1

TOP ACCESS SPEED OF INCUMBENT’S RESIDENTIAL BROADBAND AND MONTHLY SUBSCRIPTION FEE



Note: (1) data only for DSL and FTTH service plans (2) Data for Canada, Japan as of Dec 05 (3) Data for Finland as of Sep 05 (4) Data for Spain as of Nov 05 (5) Data for France, Germany, Singapore, Taiwan, US as of Jan 06 (6) Data for Australia, HK, Italy, South Korea, Taiwan, as of Feb 06 (6) Data for New Zealand, UK as of March 06 (7)* indicates capped plans

Source: Spectrum Strategy Consultants, *Assessing competition within the Australian market — a neutral view*, 22 March 2006.

¹⁰ The availability of high broadband speeds is considered to be an indicator of strong economic growth.

¹¹ While it could be argued that Telstra offers ADSL2+ at speeds of up to 24 mbps (depending on the distance from the exchange), it is only available in areas that competitors are also offering their own high speed broadband services. Telstra has no incentive to offer innovate services unless compelled by competition. Any reduction in competition could therefore potentially result in less technological innovations. See Australian Associated Press (AAP) and LeMay, R., 2006, 'Regulator, govt give Telstra ADLS2+ green light', 30 November, <http://www.znet.com.au/news/communications>, accessed 11 December 2006.

1.3 Structural separation – vertical and horizontal

Structural separation attempts to divide the competitive and monopoly bottleneck activities of the incumbent to restrict the incumbent from leveraging its market power from one market to another, in order to ensure a fair and competitive downstream market. Structural separation can occur at the vertical or horizontal level:

- *Vertical separation* — this refers to splitting wholesale and retail businesses of the incumbent. Separation of wholesale and retail parts of the incumbent means that it is easier to ensure that the wholesale business does not discriminate unfairly against retail competitors, and that it concentrates on attracting retail businesses on its network. In this report, we argue that Telstra’s fixed-line wholesale and retail businesses should be separated; and
- *Horizontal separation* — this refers to the incumbent selling some or all of its ownership in a line of business to independent parties. Horizontal separation can lead directly to increased competition (for example, by allowing networks to compete against each other and by stopping the incumbent leveraging its market power in one line of business to another). In this report, we argue for Telstra divesting its Foxtel shareholding *and* selling its Hybrid Fibre–Coaxial (HFC) pay TV network. A further option is for Telstra to divest its mobile network from the rest of its businesses.

There are examples of vertical and horizontal separation in other jurisdictions. Some jurisdictions have dealt with structural separation in innovative ways. For instance, in the UK, British Telecom has established a separate access division within the company overseen by a separate board with the regulator able to nominate two people to sit on the Board. Another competitive model is one put forward by the Allen Consulting Group relating to the rollout of a fibre–to–the–node network.¹² This proposal involves structural separation of the ownership of the node and control of key management issues of the network.

1.4 Structure of this report

The rest of this report is structured as follows:

- chapter 2 describes the state of competition in Australia and the international experience with structural separation of the incumbent;
- chapter 3 describes some of the theory behind the behaviour of a vertically integrated incumbent with market power, and examples of how the incumbent has been able to use its market power as a consequence of its integrated nature, to stifle competition in telecommunications markets; and
- chapter 4 provides a discussion of the costs and benefits of adopting structural separation.

¹² Allen Consulting Group 2006, *A competitive model for national broadband upgrade*, 10 July.

Chapter 2

Competitive outcomes in Australia and lessons from other jurisdictions

2.1 Introduction

This chapter provides an overview of the state of competition in the Australian fixed-line services and broadband services market. Fixed-line services include basic access, local calls, national long distance or STD calls, international or IDD calls and fixed-to-mobile (FTM) calls. While some competition has materialised in these service markets, Telstra still maintains a dominant position through its ownership of key wholesale infrastructure.

A separate discussion on the state of competition in the mobile services market is also provided. This is one of the most competitive areas in telecommunications, but is now in danger of being dominated by Telstra.

This chapter also briefly describes some of the experiences in, and views on structural separation in other jurisdictions — the United States, European Union, Japan and New Zealand.

Fixed-line services

Basic access is essential for the provision of fixed-line services. It is primarily provided over Telstra's near-ubiquitous copper network up to 87 per cent of Australian homes and businesses relying on this network for voice services.¹³ In addition, Telstra owns the largest cable network passing by 2.2 million homes.¹⁴

Competition from other local access networks using technologies such as microwave, satellite, optical fibre and fixed wireless have emerged but have not yet exerted any strong competitive influence.

According to the ACCC, the Optus HFC network has probably reached its capacity as an alternative wholesale network:¹⁵

Although the take-up of Optus' HFC network for retail broadband services has increased, its use as a platform for resellers to provide basic access and local calls has not changed in the past year, suggesting that its position as an alternative form of infrastructure has matured due to its limited geographic reach (approximately 2.5 million homes).

The ACCC, therefore, concludes that resellers continue to be heavily reliant on Telstra for basic access:¹⁶

Therefore, despite the increase in services resold by Telstra's competitors, the degree of reliance on Telstra's infrastructure remains largely unchanged, and alternative networks have not increased their influence.

¹³ ACCC 2006, *Telecommunications competitive safeguards for 2004-05*, April, p.17.

¹⁴ approximately 12 per cent of basic access is provided by Optus' HFC network.

¹⁵ ACCC 2006, *Telecommunications competitive safeguards for 2004-05*, April, p.18.

¹⁶ ACCC 2006, *Telecommunications competitive safeguards for 2004-05*, April, p.18.

While other competitive models, such as purchasing the unconditioned local loop service (ULLS) from Telstra and combining it with competitors' own infrastructure, is increasingly popular, at some point competitors usually will have to gain access to Telstra's copper network.

The existence of high barriers to entry at the wholesale level means that the entry of other carriers is unlikely to be a major competitive threat to Telstra. At the wholesale level, substantial investment in infrastructure is required that largely becomes sunk. This increases the risks of investment and potential for failure, making new investment less attractive.

High barriers to entry also exist at the retail level — one of the most significant being the ongoing dominance of Telstra as a retailer of local telecommunications services as well as the main wholesale provider of inputs necessary for other retailers to compete.

Customer inertia, or status quo bias, can also act as a barrier to achieving sufficient scale to compete effectively. When combined with actual switching costs (contract lock-in, for example) and information asymmetry about the range of available contracts, Telstra has considerable advantages as the default provider of local telecommunications.

The ACCC makes the assessment that most competition in fixed-line has been at the retail level, with competitors mainly purchasing wholesale infrastructure elements from Telstra.¹⁷

While resellers have made some inroads into Telstra's retail market share in the provision of basic access and local calls, this has been minimal and there are significant barriers to new entrants obtaining sufficient scale to compete sustainably. The overriding characteristic of the market is there is still a large degree of reliance on Telstra's network for provision of local telecommunications services and therefore little infrastructure-based competition.

Broadband services

Customer access services are an input necessary to supply high bandwidth carriage services to end users. These services can be supplied by means of copper, optical fibre or HFC networks or wireless networks. Telstra is the main supplier of these customer access services and therefore controls access to the majority of inputs needed for competition in the high bandwidth carriage services market.

In recent years, there has been increased partial fixed-line facilities-based build to provide broadband services using the ULLS or the line sharing service (LSS), the latter to a lesser extent. iiNet has over 100 000 customers that it serves using LSS, and combined with PowerTel has more than 300 exchanges in service today. TransACT has offered ULLS-based services for over two years, experiencing strong customer take-up. Primus also has built 170 Digital Subscriber Line Access Multiplexers (DSLAMs) in Telstra exchanges.

These competitors are still heavily reliant on Telstra to provide access to the ULL, the exchange and other wholesale inputs on reasonable price and non-price terms and condition. Many Australian internet service providers (ISPs) do not operate their own infrastructure, participating only in the retail market — these competitors are even more heavily reliant on Telstra for reasonable access terms and conditions.

¹⁷ ACCC 2006, *Telecommunications competitive safeguards for 2004-05*, April, p.27.

The state of competition in the broadband market has significant implications for the maintenance or stimulation of competition in other related telecommunications markets. This is because the decision to take up broadband plays an important role in encouraging customers to move to new service providers for potentially all of their telecommunications purchases. The ACCC concludes that:¹⁸

In addition to being an important market in its own right offering a plethora of benefits to Australia consumers and business, the importance of broadband to the broader telecommunications market should not be underestimated. ...

Consumers that decide to investigate a broadband connection are likely to take that opportunity to reassess all of their telecommunications purchases; especially in a market where there is competitive bundling.

Mobiles services market

The four mobile network operators — Telstra, Optus, Vodafone and Hutchison — all own mobile network infrastructure and operate at the wholesale and retail levels. The coverage of their networks and market shares are set out in Table 2.1.

Table 2.1

MOBILE OPERATORS, 2004-05

Carrier/network	Launch date	Coverage	Mobile services 30.06.04 ('000s)	Mobile Services 30.6.05 ('000s)	Year on year % change	2004-05 market share (%)
Telstra GSM	1993	96%	6,659	6,923	4.0	37.6
Telstra CDMA	2000	98%	1,006	1,394	38.6	7.6
Optus GSM	1993	96%	5,689	5,989	5.3	32.5
Vodafone GSM	1993	95%	2,498	3,167	26.8	17.2
Hutchison W-CDMA ('3') ^a	2003	44%	624	950	n/a	5.2
Total			16,476	18,423	11.8	100

Notes: a) these figures also include migrated customers previously on Hutchison's Orange network. These numbers are slightly over represented because Orange customers could choose to move to other mobile networks without penalty.

Source: Australian Communications and Media Authority 2005, *Telecommunications Performance Report 2004-05*, November, p. 78.

Telstra is expected to close its CDMA network in 2008, and migrate rural and regional mobile users to a new 850MHz nationwide W-CDMA network, which is expected to cover 98 per cent of the country. This will allow regional and rural Australia to access 3G services that have so far only been available to urban areas.

¹⁸ ACCC, *Telecommunications Safeguards report 2003-04*, March 2005, p.30.

Telstra still has the highest market share in the provision of mobile services (45.2 per cent), followed by Optus (32.5 per cent). The mobile services market also consists of resellers of mobile services, mobile virtual network operators (MVNOs)¹⁹ and retailers. Examples of resellers include Primus Mobile (resells Telstra services), SIMplus (Optus), and BDigital (Optus). The Australian Communications and Media Authority (ACMA) reported that there were almost 90 resellers of mobile services in 2005.²⁰

The market structure, comprising four competing networks, is more inclined to deliver competitive outcomes in downstream markets than the markets for fixed-line services. However, the mobile services market is also vulnerable to the incumbent operating in the fixed-line market leveraging its market power onto the mobile services market.

Competitors can enter the mobile services market in a number of ways. A roaming agreement can usually be entered into with mobile carriers with extensive or some coverage. However, competitors will not be able to roam on Telstra's new 850MHz network, given its no-access policy on that network. No other telecommunications operator other than Telstra will be able to offer 3G nation-wide services (the implications of this is discussed later in this paper).

Entrants can also resell carriage services provided on the network of a carrier that has such coverage. Carriers may also choose to avoid paying for all fixed costs themselves by entering into infrastructure cost sharing agreements with other mobile operators.²¹

While new entry using these models may introduce some competition into the retail market, this is unlikely to diminish the market power of network owners because the incumbents will maintain control over their networks and will be able to control (to at least some extent) the network costs faced by such new entrants.

New entrants seeking to become substantial players also face the hurdle of securing national geographic coverage. Only 10 per cent or less of all retail mobile services are sold by resellers, and those operators with less than full geographic coverage (such as Hutchison) have very small market shares.²²

2.2 Structural separation approaches in other jurisdictions

The approaches to structurally separate the telecommunications industry in the United States, European Union, Japan and New Zealand and briefly discussed in this section.

The United States

The United States was the first country to embrace full structural separation when, in 1984, it broke up the incumbent monopolist AT&T into a series of regional monopolists — the 'Baby Bells' — and a single long distance interstate carrier.

¹⁹ An MVNO differs from a reseller because, in addition to purchasing wholesale mobile capacity from an existing mobile network operator, it sets up a technical support layer that replicates the mobile network operator's mobile switching centre. This gives it more control over its retail operations.

²⁰ Australian Communications and Media Authority 2005, *Telecommunications Performance Report 2004-05*, November, p. 79.

²¹ In late 2004 the ACCC approved 3G network infrastructure cost sharing arrangements between Hutchison and Telstra, and Optus and Vodafone.

²² ACCC 2006, *Telecommunications competitive safeguards for 2004-05*, April, p. 33.

Following this reform, the US now has one of the most competitive telecom sectors in the world, and significant infrastructure competition in the guise of a developed cable network. In recent years there has been a roll back of some regulatory restrictions. This option is open to few if any other jurisdictions, available arguably because of its earlier intensive reforms.

As the OECD points out in its report, *Restructuring Public Utilities for Competition*,²³ the US provides an example of the effect that structural separation can have on the behaviour of the incumbent. Negotiations with the vertically integrated GTE — a private company that escaped the break up of the Baby Bells, competing in both the long distance and local services — was more aggressive, with prolonged and ultimately less successful negotiations with competitors. In GTE serviced regions, entry was systematically lower.

GTE also had an incentive to impede competition by leveraging its market power in the long distance market through bundling. The loss of customers in the local call services market meant it could potentially lose that customer in the more profitable long distance market as well.

The European Union

Independent cable operators as a source of competition

In 1999 the European Commission adopted a Cable Directive (1999/63/EC), requiring that incumbent fixed line operators split their cable divisions into separate legal entities to develop competition between cable and telecom operators. This stemmed from the Commission concluding that the previous 1995 directive requiring accounting separation did not provide for sufficient safeguards against incumbents' anti-competitive behaviour.

The Commission specified that legal separation as a minimum should be introduced:²⁴

Where Member States have granted a special or exclusive right to build and operate cable TV networks, to a telecommunications organisation in the same geographic area where it is dominant on the market for services using telecommunications infrastructure, that telecommunications organisation has no incentive to upgrade both its public narrowband telecommunications network and its broadband cable TV network to an integrated broadband communications network ("full-service network") capable of delivering voice, data and images at high bandwidth.....It would be desirable in those circumstances to separate the ownership of the two networks into two distinct companies since the joint ownership of the networks will lead those organisations to delay the emergence of new advanced communications services and will thus restrict technical progress at the expense of the users.

The UK followed a similar path when cable first developed as an alternative platform. The UK passed legislation preventing BT from using its network to broadcast entertainment services until 2001 (the restriction was lifted in 1999). This was crucial in encouraging other cable networks to emerge and invest in their own networks, providing the opportunity for infrastructure-based competition.²⁵

²³ OECD 2001, *Restructuring Public Utilities for Competition, Competition and Regulatory Reform*, France.

²⁴ The Commission of the European Communities 1999, Commission directive 1999/64/EC, *Official Journal of the European Communities*, 10 July, p. 39-42, <http://portal.etsi.org/public-interest/Documents/ Directives/>, accessed 7 December 2006.

²⁵ OECD 2001, *Restructuring Public Utilities for Competition, Competition and Regulatory Reform*, Appendix A, p.87

Developing competition through merger divestments

A number of merger rulings by the European Commission demonstrate its desire to encourage the development of independent cable companies as a source of competition.

In 1999 the Commission only approved a merger between Telia of Sweden and Telenor of Norway after requiring the divestment of Telia's cable TV business and overlapping business interests. In making this direction, the Commission stated:²⁶

...these effects [from an increase in market power due to a horizontal concentration] would be substantially reinforced by the vertical effects, resulting from the combined activities of Telia and Telenor. The result of the operation is therefore to create a combined entity with strong or dominant positions covering the whole value-chain of the telephony and TV sectors.

In 2002 two of the largest providers of mobile and fixed-line services in Scandinavia — Telia from Sweden and Sonera from Finland — merged. The Commission again only approved the merger after the parties agreed to commitments, including the divestment of Telia's cable business ComHem AB.²⁷

The Commission was particularly concerned about the market power of the new entity in terms of voice and data communication services to corporate users in Sweden and Finland. It feared that by combining the reach of the two operators each could potentially leverage their strong position in markets such as the mobile and data communications in Sweden and Finland, into broader markets such as customised communications. In particular the Commission noted the growing trend amongst corporate customers to demand integrated communications 'packages' comprising both voice (fixed and mobile) and data services:²⁸

In the provision of bundled services offerings there is generally a risk that providers of essential parts of the package (such as call termination, access to the local and national infrastructure and wholesale international roaming) can foreclose providers of other parts either through direct bundling or by offering price structures that only make it attractive to buy its solution.

The Commission also flagged concerns that the merged entity would be able to foreclose access to internet services. As part of its deliberations the Commission revealed a more general insight about the problems of integrated telecom providers and cable operators:²⁹

[A]ccording to some third parties incumbent telecommunications operators have been slow to proceed in the necessary upgrading of cable TV networks because their upgrading would indeed lead to the introduction of rival services, especially in the field of voice telephony and broadband Internet services. It has also been stated that as a consequence of the current transaction cable TV networks in Sweden will assume an even greater importance as an alternative platform for a variety of existing and new service sectors (including voice telephony).

²⁶ Commission of the European Communities 1999, Telia/Telenor(Merger) EComm 92, 13 October, paragraph 376, <http://www.worldlii.org/eu/cases/EComm/1999>, accessed 7 December 2006.

²⁷ Commission of the European Communities 2002, TELIA/SONERA(Merger) EComm 41, 10 July, <http://www.worldlii.org/eu/cases/EComm/2002>, accessed 7 December 2006.

²⁸ Commission of the European Communities 2002, TELIA/SONERA(Merger) EComm 41, 10 July, <http://www.worldlii.org/eu/cases/EComm/2002>, accessed 7 December 2006.

²⁹ Commission of the European Communities 2002, TELIA/SONERA(Merger) EComm 41, 10 July, <http://www.worldlii.org/eu/cases/EComm/2002>, accessed 7 December 2006.

A path towards vertical separation – the European fixed line network

The existing European legislation

Under the European Communication Networks framework directive the national telecommunications regulator (NRA) for each member state is required to make an assessment of the state of competition in a number of markets highlighted by the European Commission. Where the NRA identifies an area of substantial market power, it must propose a regulatory response based on an approved toolkit of policy options. At present this does not include structural separation.

Under Article 7 of the framework directive, the Commission must be provided with a series of reports detailing the progress of competition and has the right to challenge decisions that it considers incompatible with its objective of opening the market to competition. Under this process it has continued to press for greater access conditions for competitors

The Commission has clashed with member states on a number of occasions where it considered that regulatory or governmental decisions failed to address its concerns. In particular, the Commission has sought to prevent vertically integrated businesses from further consolidating their position in markets where competition is emerging or new technologies are introduced. The Commission recently opposed a proposal by the German Government to introduce a regulatory holiday for Deutsche Telecom. At the time Commissioner Reding noted:³⁰

...we cannot afford to create new monopolies out of short term political opportunism.

Reform of European access regulation

The Commission has been reviewing the existing regulatory framework.³¹ This review identified a number of options for further reform and explored the merits of structural separation as a policy tool. The weakness of the existing package of policy options, and the limited incentives to encourage incumbents to voluntarily open up their network to competitors on reasonable terms and conditions, was considered.

Analysis and Hogan & Hartson prepared a review of the Commission's policy options.³² They noted the limitations of accounting separation and concluded that if accounting separation is not enough to prevent distortions of competition, structural separation may be the next logical alternative.

Analysis and Hogan & Hartson argue that the NRA should have the option to impose structural separation as a last resort if the incumbent operators consistently fail to meet their access obligations under the directive. As stated by Commissioner Reding, without the credible threat of divestiture, behavioural remedies alone are not going to be sufficient:³³

³⁰ Bloomberg News 2006, 'EU renews legal threat over German broadband', *International Herald Tribune*, May 17, <http://www.iht.com/articles/2006/05/17/business/techbrief.php>, accessed 8 December 2006.

³¹ The Commission published a series of consultation documents on 28 June 2006, including several consultants' reports.

³² Analysis, Hogan & Hartson 2006, *Preparing the next steps in regulation of electronic communications, A contribution to the review of the electronic communications regulatory framework*, July.

³³ Commissioner Viviane Reding 2006, European Commission Commissioner, Speech at the ECTA Conference, 'From Service Competition to Infrastructure Competition: the Policy Options now on the table', 16 November.

...the policy option of structural separation could answer many competition problems that Europe's telecom markets are still facing today. Perhaps we have to be as radical as regulators were in the US in the 1980s to make real progress?

Recent developments in member states

No country in Europe has yet to adopt full structural separation. The UK has come the closest to adopting structural separation with UK regulatory body Ofcom recently negotiating undertakings with BT, which provide for operational separation between its wholesale and retail business. This outcome was only achieved following the introduction of the *Enterprise Act 2004*, which allowed Ofcom to credibly threaten the imposition of structural remedies in its negotiations with BT.

The negotiated settlement between BT and Ofcom does not represent full structural separation but a form of imposed autonomy between BT's retail and wholesale arms — a much stronger form of separation than other approaches in Australia thus far. The BT wholesale division will deliver a comprehensive suite of access products, on an equivalent basis to all retailers, including to the BT Retail division. The new wholesale business unit will have its own management structure — with no remuneration links to the overall performance of BT group — will be located in separate premises and have its own operating and trading systems. This access services division will be rebranded as 'Openreach' to reflect its distinct status to the rest of the group. All of these steps will be overseen within BT by an Equivalence of Access Board, which will report to Ofcom.

These commitments relate not only to the existing network but also to future investments in BT's next generation network (NGN). BT will continue to provide unbundled access to its NGN that supports equivalence of inputs offering new retail products only when equivalent wholesale products are available.

Italy is also developing along similar lines to the UK, with Telecom Italia recently proposing to place its local access network into a separate operating unit. Negotiations between the regulator and Telecom Italia look like resulting in a new regulatory framework. The regulator said:³⁴

The trade off for telecom is rigour on the wholesale side in return for absolute scope to provide retail services.

It is likely to take 12 months to finalise the local access rules. Telecom Italia's new next generation access network is also likely to be included as part of the undertakings.³⁵ This reflects the regulator's view that it is vital that the scope of the regulatory arrangements extend beyond simply the existing network:³⁶

The existing access network will become a museum item in 5-7 years.

³⁴ Interactive Investor 2006, 'Telecom Italias's local access network will not win regulatory holiday – regulator', <http://www.iiico.uk>, 27 November, accessed 8 December 2006.

³⁵ Telecom Italia Group 2006, Third Quarter 2006 Report, p. 34, <http://www.telecomitalia.it>, accessed 8 December 2006.

³⁶ Interactive Investor 2006, 'Telecom Italias's local access network will not win regulatory holiday – regulator', <http://www.iiico.uk>, 27 November, accessed 8 December 2006.

This process reflects a commercial strategic decision by Telecom Italia as to how best to develop its next generation network. The European Commission has also expressed the view that telecommunications as operators move towards IP based next generation networks they are becoming inherently more suited to a business model that incorporates separation of some kind. Commissioner Reading notes that:³⁷

What we have also observed is that IP opens the way for a logical separation between the passive networks (cables and ducts) and the more active elements (including hardware such as servers and routers and the service layers).

In fact, this conceptual separation is starting to appear as a potential business model separation as some firms (and regulators) start to recognise that the incentives for investing in services and passive infrastructures are somewhat different. In fact, investments in the passive infrastructures (cables and ducts) require a long term strategy that calls for long term predictability. This is problematic if the business model is tied up with highly volatile and fast changing service markets.

Japan

Japan was one of the first countries outside of the United States to embrace structural reform when liberalising its telecommunication sector. Japan also provides an important lesson, demonstrating that structural reform if initiated, cannot be half-hearted.

In 1999 the incumbent telecommunications operator was split into a number of regional carriers, but remained under a single holding company. Instead of competing against each other — by constructing new infrastructure or developing network services, for example — the companies continue to act like a single operating unit under different corporate identities. The fact that the incumbent NTT Holding Co. also has a significant stake in the major mobile operator has also been blamed for limited competition between fixed line and mobile services.³⁸

New Zealand

The New Zealand experience provides some insight into the operational separation process conducted seemingly voluntarily by the incumbent. Their experience suggests that operational separation can be hampered by uncertainties with how to separate the incumbent. It also indicates that operational separation in Australia is less likely succeed as an alternative to full structural separation. Unlike the New Zealand incumbent, Telstra has always demonstrated a reluctance to comply with regulation, and has maintained an ambivalent attitude toward the regulator — this is likely to manifest itself in protracted negotiations between the regulator and Telstra.

³⁷ European Union 2006, Speech by Commissioner Viviane Reading at the Conference of the International Telecommunications Union (ITU), Hong Kong, 4 December 2006, <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/06/772&format>, Accessed 7 December 2006.

³⁸ Moussis, I., Shiroyama, M. 2004, 'Japan: telecoms regulation and competition rules', Global Competition Review, *Asia Pacific Anti-trust Review*, p. 54

Government review of the telecommunications sector

The Communications Minister reviewed the regulatory framework in May 2006 because of concern with the limited degree of broadband penetration in New Zealand. The review concluded that New Zealand's poor performance was primarily due to inadequate competition. The report concluded that a more interventionist approach was required, proposing a range of measures designed to bolster competition in the sector. A number of legislative proposals were made including full local loop unbundling and an enhanced wholesale service regime.

This was a major shift in policy direction for New Zealand, which had traditionally resisted significant regulation for the telecommunications sector. Initially Telecom New Zealand ('Telecom', the incumbent) expressed its dismay at the proposal:³⁹

It is hard to see how the steps announced today will deliver on the Government's aims of high speed broadband throughout New Zealand, Telecom said today...

Today's package actually tells players to put away any major investment plans and rely on regulation instead.

Telecom — a change of direction

The NZ Government indicated it was actively considering the option of full structural separation — a threat directly related to Telecom's continued intransigence at the wholesale level. This announcement is likely to have placed stronger incentives on Telecom to engage constructively with the process and develop a workable alternative.

Only a few days after its initial hostile comments Telecom's Chairman released a new press notice:⁴⁰

Last week, a new regulatory regime was announced that fundamentally changes the telecommunications market in New Zealand.

Telecom understands that the public supports these changes. We are committed to reviewing our strategy and future planning to respond to the new environment," Telecom Chairman, Dr Roderick Deane, says.

The new environment will require a different approach from Telecom. Dr Deane said he wanted to make it abundantly clear that the Board and management recognise the need for this to occur.

Telecom seemed to take the initiative in developing a framework that might convince the Government that it seeks to take operational separation seriously. This is reflected Telecom CEO Theresa Gattung comments:⁴¹

We could have dragged our heels. We haven't....

Our proactive approach in this space is a real sign of our commitment to making this work.

I am not standing here telling you the world is perfect, or that the job of transformation to a new environment is complete.

It's not. There is a long way to go.

³⁹ Telecom New Zealand 2006, 'A Lost Opportunity For New Zealand', <http://www.telecom-media.co.nz>, 3 May, accessed 8 December 2006.

⁴⁰ Telecom New Zealand 2006, 'Telecom sets new direction', 12 May, <http://www.telecom-media.co.nz>, accessed 6 December 2006.

⁴¹ Telecom New Zealand 2006, 'Theresa Gattung Address', 31 October, <http://www.telecom-media.co.nz>, accessed 6 December 2006.

A lot of what happens is outside our control. But to the extent where we can show leadership and fashion change, we are determined to do so responsibly – for the sake of the whole industry.

We believe it is a responsibility of a company in Telecom’s position, in this environment, to work positively and proactively.

Telecom’s proposed reforms

Telecom has proposed to divide its business into separate internal operating divisions, splitting its wholesale and retail business along similar lines to the reforms undertaken by BT in the UK:⁴²

Like the government, we have looked to the UK for a blue print. In the UK BT negotiated a set of legally binding enforceable undertakings focused on “creating a climate of confidence for infrastructure competition, investment and innovation”. As part of Telecom commitment to work with the new regime we have made public our proposal to operationally separate. We want to work with the crown to finalise our undertakings, and would expect that any draft set of undertakings would be subject to public consultation before finalising the detail and implementation.

Telecom noted that its governance system would ensure that the wholesale unit remains separate from the rest of the business. This means:

- strictly controlled information flows between wholesale and retail arms;
- physically separated operations with controlled access; and
- independent incentives for wholesale management team.

Unlike BT, Telecom has said that it will only introduce equivalence of inputs for new Next Generation Network services. For the current regulated services it will introduce equivalence of outputs, but might use different systems when dealing with its own retail arm.⁴³

Replicating the benefits of structural separation

Telecom argues that its proposals are both radical and effective, and its interpretation of operational separation will deliver benefits equivalent to structural reform in a swifter time frame:⁴⁴

We have already embarked on the process of operational separation. We have done this because we needed to move swiftly to give both the industry and our shareholders some clarity about future direction, and because we believe operational separation is the most effective model to deliver the competition and transparency sought. The commitment to enter into binding undertakings is a significant step. It will level the playing field for wholesale customers purchasing targeted access services and ensure it occurs in a workable and timely way. It is designed to have bite. The independent oversight group will monitor our behaviour. If we fail to live up to our undertakings on separation we will be publicly held to account. Issues which may arise around the workability of enforced separation options can be avoided and the time frame for achieving separation is much faster for operational separation than structural separation.

⁴² Telecom New Zealand Limited 2006, *Submissions on the Telecommunications Amendments Bill*, 15 August, paragraph 80.

⁴³ Equivalence of inputs means that Telecom’s competitors are provided with the same service as Telecom’s retail business. Equivalence of outputs, a weaker concept, means that Telecom’s competitors will receive ‘equivalent’ service.

⁴⁴ Telecom New Zealand 2006, *Submissions on the Telecommunications Amendments Bill*, 15 August, paragraphs 7-10.

Telecom's commitments appear to be a significant step forward, and suggest a cultural change by the incumbent. This is similar to BT's cultural conversion. Telstra, on the other hand, has also arguably changed its culture, but in the opposite direction, moving from a position of mere resentment towards the regulator to open hostility.

Some New Zealand commentators, however, are sceptical about Telecom's change of heart. Michael Wigley, a regulatory lawyer, has recently written that Telecom's proposals fall short of the BT model. In particular, unlike BT, Telecom is not proposing an:⁴⁵

...operationally separate division that supplies wholesale, wholesale customers and the retail channel. In other words, it does not address the fundamental policy issue and is fundamentally different from the BT model. The policy drivers underlying the BT model are not by the Telecom solution as there is no separated network division to handle the "enduring bottleneck" problem.

Wigley also notes that Telecom's proposal applies to far fewer products than in the BT model.

The New Zealand Government has recently released its planned legislative changes that will put these reforms in place by the end of 2006. These changes are more radical than Telecom had hoped and much closer to the original BT model. The bill proposes separating Telecom into three separate parts, a network access arm, a wholesale arm and a retail arm, with full accounting separation for each. An independent oversight group will oversee the process. If Telecom fails to fully comply with the new framework, it will face the prospect of a fine up to \$10 million, a significant increase on the originally proposed \$1 million ceiling.⁴⁶

The select committee devising the legislation commented on the increased scope of its proposal:⁴⁷

The majority are concerned that Telecom would still have the ability and incentives to favour its own retail units over its competitors if its network access services were not operationally separate from its other wholesale units and its retail units. In our opinion, it is difficult to guarantee a Chinese wall between entities that are not operationally separate.

⁴⁵ Wigley, M. 2006, 'Next Generation Networks: another reason why Telecom must have robust operational separation', September, <http://www.wigleylaw.com/Articles>, accessed 6 December 2006.

⁴⁶ Keown, J. 2006, 'Telecom's tough year continues – it's split into three', *New Zealand Herald*, November 28, <http://www.nzherald.co.nz>, accessed 8 December 2006.

⁴⁷ New Zealand Parliament 2006, *Select Committee Report: Telecommunications Amendments Bill (62-2)*, 28 November.

Chapter 3

Vertical Integration and market power — theory and practice

3.1 Introduction

This chapter provides a brief overview of the economies underlying the *incentives* and *ability* for Telstra — a vertically integrated incumbent — to stifle competition in contestable markets, including examples of potential anti-competitive behaviour.

3.2 Incentive effects

A vertically integrated incumbent that owns an essential facility usually has a strong incentive to restrict competition in related contestable markets. By restricting competition in contestable markets (through high access prices and/or unreasonable non-price terms and conditions), the vertically integrated firm may be able to stifle new entry or innovation.

Telstra's ownership of the only ubiquitous Customer Access Network (CAN) — an essential wholesale infrastructure input — means that it can detrimentally affect competition in all related markets. Most competitors purchase at least some wholesale services from Telstra to participate in fixed-line retail markets, while at the same time competing against Telstra's retail business in those markets. By charging high prices for access to its core network and/or implementing delay tactics, Telstra has the capacity to extract monopoly rents and to foreclose competition in downstream markets.

Another example of the likely incentives of a vertically integrated incumbent is by examining Telstra's incentives as both a pay TV operator (through its 50 per cent share of Foxtel) and owner of a distribution network. If Telstra was an independent retail pay TV operator, its incentives would be to drive penetration and maximise subscriptions. As an independent distribution network owner, its incentives would be to maximise use of the network. However, when integrated, these incentives change. In particular, Telstra's incentives as a pay TV operator would be to minimise the ability of competing retail pay TV operators to use its distribution network, thereby increasing the likelihood of the Telstra maximising its own subscriptions.

Additionally, Telstra can and does stop Foxtel from offering telephony and broadband services that compete with Telstra. Absent Telstra's shareholding, Foxtel could compete with Telstra. In no other country in the world is the dominant telephony company allowed to have a major stake in the dominant pay TV company, for the good reason that the pay TV company has the infrastructure to provide competing telecommunications services. Indeed, as discussed in Chapter 2, in the United States, households have the choice of buying their fixed line (telephony, broadband, pay TV) telecommunications services from either their local telephone company or their local pay TV company.⁴⁸ This choice is not available to Australian households.⁴⁹

3.3 Telstra's ability to act anti-competitively

Telstra has the *ability* to act anti-competitively as demonstrated through:

- *using bundling strategies in an anti-competitive manner* — the ability of a telecommunications firm to innovate and provide more combinations of price and product offerings is one of the benefits from the introduction of competition. However bundling can be used by the incumbent in an anti-competitive manner;
- *Telstra's decision to not provide access to its new 850MHz network and to shutdown its CDMA network* — this decision has been disruptive to the business plans of other mobile competitors currently roaming on Telstra's CDMA network. No-access policy on the new network may potentially have a direct damaging effect on competition in the mobile services market but also extend to other telecommunications markets including fixed-line service markets; and
- *sabotage (delay and disruptive tactics by the incumbent)* — price and non-price discrimination by the incumbent may also undermine efficient investment in competing infrastructure, and the emergence of sustainable competition.

Each of these points is discussed further below.

Anti-competitive bundling strategies

Bundling can be used as an anti-competitive instrument. There are concerns that a vertically integrated carrier supplying to downstream competitors could use bundling as an instrument of leverage of market power from one market to another, to predatory price or price squeeze competitors out of the market.

Leveraging

The incumbent could use its market power to 'capture a customer and leverage'. This relates to the supplier capturing the customer by making it attractive for the customer to purchase more than one product from the same competitor (because of a discount, for example) in order to extend (or leverage) market power from one market to another.

⁴⁸ In New Zealand, the dominant telephony company is Telecom New Zealand, while Sky is the dominant pay TV company. Telstra's subsidiary, Telstra Clear, supplies pay TV services in some markets.

⁴⁹ ACCC 2003, *Emerging market structures report*, June.

Anti-competitive concerns are particularly relevant in relation to services from new or emerging markets such as broadband or pay TV. The incumbent utilises bundling to leverage into new technologies, raising barriers to entry, for the purpose or likely effect of foreclosing competition in the new or emerging market. This may be more detrimental to competition by inhibiting the introduction of new products and technology.

Where competitors also have access to the new or emerging service, this does not raise concerns about bundling *per se*, but rather about access to the new service, which is the root cause of their inability to compete.

A number of service providers have raised concerns about Telstra's bundling conduct, which they allege involves Telstra using its advantage in the telephony and pay TV markets to restrict opportunities for its competitors.

Predatory pricing and price squeezing

Predatory behaviour aimed at stifling competition can occur in a number of ways but mostly through either a price squeeze or predatory pricing. A vertical price squeeze is where a vertically integrated firm lowers its retail price and/or increases its wholesale price so as to render the business of its retail rivals unviable.

A recent example of a price squeeze is one currently under investigation by the ACCC relating to line rental. Telstra increased the wholesale price of line rental to well above the retail price paid by the vast majority of its own retail customers.

Sabotage

Sabotage is any 'discriminatory provision of the [essential input] that raises rivals' marginal cost,' or lowers demand for rivals' products.'⁵⁰ It typically involves actions that impose delays on, or other non-price means to disadvantage, competitors.

Sabotage will *only* occur when there is a monopolist that is vertically integrated — vertical separation will therefore solve the problem. If there is no vertical integration then sabotage would only serve to lower access sales and therefore profit.

While a price squeeze or predatory pricing aim to force competitors out of the market, sabotage is more subtle, aimed at giving the downstream affiliate a competitive advantage. Sabotage may therefore be a more effective tool for a monopolist to 'manage' the downstream market to its advantage without raising regulatory concern.

The academic literature provides many examples of sabotage, including:

- providing inferior services to competitors – for example increasing the number of calls that are blocked;
- delaying attempts to provide new and improved products;
- withholding crucial technical information about how to best utilise a network; and
- structuring standards in favour of the downstream affiliate.

⁵⁰ Mandy, D. 2000, 'Killing the Goose that Laid the Golden Egg: Only the Data Knows Whether Sabotage Pays', *Journal of Regulatory Economics*, 17, pp.152-172; and Mandy, D., and Sappington, D. 2003, 'Incentives for Sabotage in Vertically-Related Industries', forthcoming in the *Journal of Business*.

It is likely that Telstra has an incentive to engage in sabotage. Studies of US telecommunications indicated that the Regional Bell Operating Companies (RBOCs) have an incentive to engage in sabotage — these results are likely to be transferable to Australia.⁵¹

The cost of sabotage

Sabotage has two main costs for the vertically integrated incumbent, and these are small.

First is the direct cost of discrimination, for example the cost of putting in place a separate database that will reject access seeker requests but allow Telstra requests. This cost will likely be small and it may even be less expensive to sabotage than provide a high quality service to all. Reiffen (1998) for example suggests that it would be cheaper for an incumbent to provide poor call and maintenance quality than to provide the same high quality services it provides to itself.⁵² These direct costs are therefore unlikely to be significant.

Second, are the regulatory costs. Sabotage may therefore have significant costs for the monopoly if caught. Many actions of sabotage are, however, hard to observe and would require extensive regulatory oversight to detect. Further, even if the actions were observed, it seems that categorical proof would be difficult — specifically, Telstra could claim that discriminatory actions are simply mistakes. Finally, given the nature of much of the sabotage, it seems unlikely that even the access seekers are aware that it is going on.

Telstra's ability to sabotage competitors

An incumbent monopolist has the ability to degrade the quality of service offered by its competitors who manage to gain access to its infrastructure.

The recent experience of competitive carriers with ULLS provides a number of specific examples of operational processes and non-price terms and conditions of supply where Telstra has created such barriers. For example, the ability of access seekers to migrate their existing resale customer base to ULLS is compromised by a number of onerous or inefficient operational processes. Examples include:

- *onerous forecasting arrangements which create environment where all the risk is placed on access seekers* — Telstra's terms and conditions stipulate that access seekers cannot exceed submitted forecasts but they may be penalised if actual orders fall below the forecast. These terms dictate that access seekers have to operate cautiously and do not have the flexibility to pursue aggressive ULLS migration strategies;
- *Telstra sets arbitrary and blanket limits on daily migration rates* — these act as a brake on the rate of migrations and again provide access seekers with little flexibility to pursue aggressive migration strategies;

⁵¹ In fact, as Telstra is highly integrated, it seems to more closely fit the profile of a potential saboteur than the RBOCs.

⁵² Reiffen, D. 1998, 'A Regulated Firm's Incentive to Discriminate: A Reevaluation and Extension of Weismann's Results', *Journal of Regulatory Economics*, 14, pp.79-86.

- *significant inefficiencies in the migration process because Telstra continues to run key components of the end to end process, such as ULLS cutover and the associated number porting, as distinct processes* — this lengthens the period of service outage customers can face during the migration process. This presents a significant impediment to customer take-up, especially within the business market where any service outage is considered unacceptable;
- *Telstra refuses to provide meaningful service levels on migrations and only commits to operate within soft guidelines set by industry codes* — this typically means that it will only commit to complete a task within a ‘clear business day’, when in reality it ought to be completed within minutes or hours. This acts as a barrier to customer take-up because access seekers provide basic assurances about the migration process (such as timeframes for completion); and
- *Telstra insists on firm projections from competitors on how many migrations will occur 84, 56 and 21 days in advance.* Any deviations from these projections (other than within a very small band of tolerance) results in a financial penalty payable to Telstra. However, Telstra can vary the number of agreed migrations without any penalty.

Other examples (relating to the fixed network generally) include:

- as the fixed line network owner, Telstra knows when a customer switches from one carrier to another (neither of which may be Telstra). Telstra has been known to offer inducements to the customer to switch to Telstra instead. No other carrier has the opportunity to make this kind of offer, because only Telstra — in its capacity as network owner — knows the identity of its competitors’ customers;
- when a non-Telstra customer experiences a service fault, it is usually the job of Telstra technicians to fix the fault, because the fault lies in Telstra’s network. Telstra technicians, when in contact with the customer, will try to get them to switch to Telstra, with the promise of a higher quality repair service if they do; and
- considerable and unnecessary delays and restrictions to Telecommunications Equipment Building Access (TEBA), which is required for access seekers to gain access to Telstra’s exchange. This causes disruption to the access seekers’ roll out plans.

Telstra’s ability to sabotage its competitors has been noted by several commentators, and the need to guard against it has been noted by the ACCC, which has said it is:⁵³

...important that we recognise that as long as one carrier overwhelmingly dominates the telecommunications sector, to the extent that all its competitors are beholden to it for access to the very infrastructure they need to compete, then regulation will be required to ensure that, as far as possible, competition is promoted and protected.

⁵³ Ed Willett, ACCC Commissioner, Speech to SPAN 2005, ‘Promoting Effective Competition Within the Telecommunications Sector’, 1 April.

Telstra's decision to shutdown its CDMA network in regional areas

Telstra is expected to close its CDMA network in 2008, and migrate rural and regional mobile users to a new 850MHz nationwide W-CDMA network, which it is speculated will cover 98 per cent of the country. This will allow regional and rural Australia to access 3G services that has so far only been available to urban areas. Telstra has indicated that it will not provide competitors access to the new 850 MHz network, saying:⁵⁴

[An access regime] could undermine Telstra's commercial incentives to continue to invest in the Next G wireless network, for example, to increase data speeds.

Telstra's plans have severely disrupted several competitors' business plans. For instance, Hutchison closed its CDMA network in August 2006 in light of Telstra's plans to dismantle its CDMA network. Hutchison has had to upgrade customers to its '3 CDMA' network causing some disruption to customers as '3' coverage for its 3G services are not the same as those for the CDMA service. Some customer may have found that the 3G services are not available in the areas they frequent. Hutchison may have also lost customers as those refusing to upgrade from CDMA to '3' are allowed to exit their CDMA contract without penalty.

The no-access policy to the new Telstra 850MHz network is likely to have a direct stifling effect on competition in the mobile services market, particularly for corporate customers in the mobile services market, which represents a high value part of the customer market. However, it is likely that the competition effect will be magnified through Telstra bundling the mobile service with other service offerings, allowing it to leverage its market power in other service markets such as fixed-line on the emergence of competition in the new 3G market.

The key concern is that business customers increasingly want to deal with only a single provider of telecommunications services.⁵⁵ They put their entire telecommunications out to tender with a view to having one provider supply them with a package of services. These decisions are being driven not just by the ease of dealing with just one supplier but technological developments as well. For example, mobile devices like Blackberrys are used to make telephone calls and send emails. It makes commercial sense for businesses to have one carrier responsible for providing both the telephony and the internet service on these devices.

In these circumstances, business customers who have any sort of regional presence (for example, large retailers, banks, amongst many others) are likely to prefer purchasing all their mobile telephony from Telstra, because no other carrier will have a nationwide mobiles presence. Having chosen Telstra as their mobile carrier, they are likely to then be inclined to choose Telstra as their carrier for all telecommunications services, particularly if discounts are offered when customers purchase a bundle of services.

⁵⁴ Maiden, M 2006, 'ACCC may opt to call a truce with Telstra over access', *The Age*, 16 October, <http://www.theage.com.au/news/business>, accessed 6 December 2006.

⁵⁵ As discussed in Chapter 2, the European Commission noted the growing trend amongst corporate customers to demand integrated communications 'packages' comprising both voice (fixed and mobile) and data services.

3.4 Potential for increased market power in a changing telecommunications environment

Increasingly more services are being provided on different service platforms using a range of technologies. While market power may be undermined in some areas, market power may be created, maintained or increased in others. In such a state of unpredictable change, it will become increasingly difficult to define markets. Consequently, anti-competitive behaviour may become harder to detect.

For instance, 3G creates potential for growth in market power through the control of content. While it is likely that voice calls will continue to be the main service provided over 3G networks in the short term, the success of 3G mobile networks in the long term is likely to depend on the availability of compelling content to make full use of the higher bandwidth provided by 3G mobile networks. Should individual competitors be able to fully control the availability of certain content, it is possible that they will wield substantial market power over mobile services and competition on 3G mobile services may suffer. The potential for this kind of market domination is even greater when there is an integrated provider that supplies both 3G, broadband, and pay television, as Telstra does.

The potential threat of increased reach of market power reflects the pressing need of structurally separating Telstra now.

Chapter 4

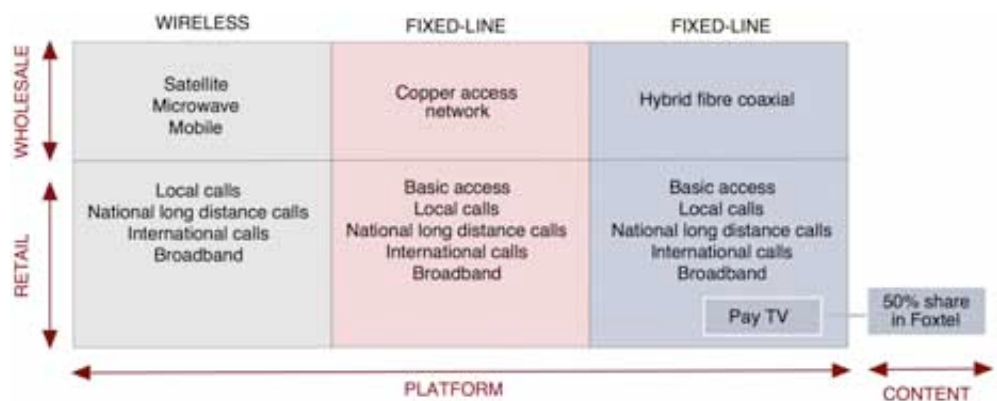
Approaches to structurally separating Telstra

4.1 Structuring separating Telstra

This section describes the manner in which Telstra should be structurally separated. Figure 4.1 illustrates Telstra's current vertically integrated status.

Figure 4.1

TELSTRA'S WHOLESALE AND RETAIL BUSINESSES



We argue that the following structural separation options would result in a more competitive telecommunications environment:

- splitting the monopoly fixed-line elements, namely the copper access network, from the retail fixed-line business (*vertical separation*);
- selling Telstra's HFC network and its 50 per cent ownership interest in Foxtel (*horizontal separation*); and
- splitting Telstra's mobile business from the rest of its businesses (*horizontal separation*).

Splitting the wholesale fixed-line business from the retail fixed-line business

Vertical separation is illustrated in Figure 4.2 as dashed line (a).

Vertical separation of the fixed-line wholesale and retail Telstra businesses would align its incentives with a non-integrated carrier, thereby guaranteeing non-discriminatory access to (components of) the incumbent's networks and promoting competitiveness at the wholesale and retail level. It would create an environment of competitive neutrality by forcing the incumbent's wholesale arm to deal with its retail arm (now separated) on the same terms that it deals with other retailers.

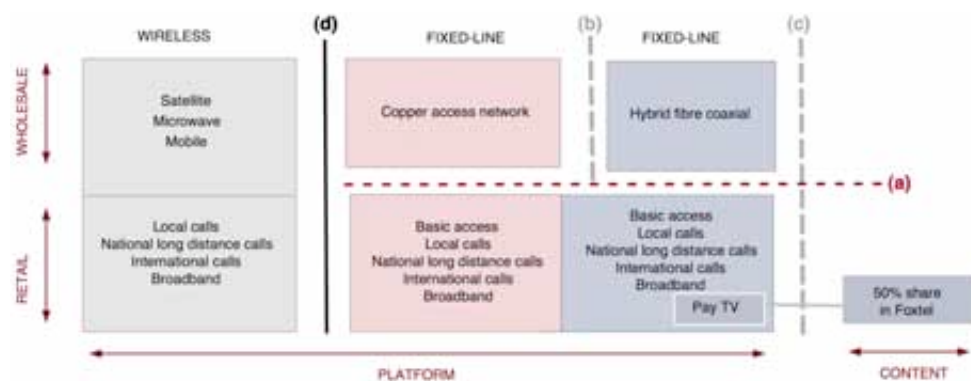
This simultaneously reduces the need for close regulatory oversight because of the change in incumbent’s incentives. It would allow regulators to focus on the wholesale network to guarantee service quality, network reliability, and access to essential network facilities at cost-based prices.

Arguably, the emergence of pressure by the retail arm of the incumbent on the wholesale entity to provide services at reasonable prices may exert downward pressure on wholesale prices. This form of countervailing power would be new to the market, as it is currently inhibited by:

- the lack of incentives for the retail component of Telstra to drive down wholesale prices; and
- new entrants with insignificant market shares in the retail market.

Figure 4.2

STRUCTURAL SEPARATION OPTIONS



Selling Telstra’s HFC network and its 50 per cent ownership of Foxtel

Selling Telstra’s HFC network is illustrated in Figure 4.2 as dashed line (b). Selling Telstra’s ownership of Foxtel is illustrated in Figure 4.2 as dashed line (c).

The current ownership by Telstra of both a copper and the largest HFC network reduces the opportunities for competition between existing infrastructure. For so long as Telstra owns or has an interest in both a copper network and an HFC network, Telstra will be concerned about maximising the combined revenues of both networks, and will therefore be hesitant to introduce new services or pricing on one network which cannibalises its revenues on the other.

Divestiture of the HFC network by Telstra would address this problem by introducing a new infrastructure competitor into the market against Optus and Telstra, establishing conditions for increased rivalry and innovation in the supply of a full range of telecommunications services. This competitor would have the potential to supply voice, broadband internet and pay TV services directly to 2.4 million households passed by the HFC.

Increased competition would also provide better incentives for Telstra to invest actively in its copper network to provide for the delivery of a range of advanced broadband services. Overseas experience strongly suggests that enhanced competition between independent networks should improve broadband price and service offerings and thereby increase the takeup of broadband services.

Through its partial ownership of Foxtel, Telstra has the ability to veto supply of pay TV channels by Foxtel to other networks. This places Telstra in the unique position of controlling important inputs of supply for its potential and actual broadband network competitors and for pay TV operators competing against Foxtel (on the Telstra HFC network).

It is not sufficient to only sell Telstra's HFC network — Telstra's ownership of Foxtel must also be sold off at the same time. This is because if Telstra's HFC network is sold off but it continues to partly own Foxtel, Telstra will have every incentive to restrict the development of digitized services by the new buyer of the HFC network where they would compete with services provided by Telstra. In so doing, a potential new source of competition in the future may therefore be diminished by Telstra's ownership of Foxtel.

Separation of Telstra's mobile network from the rest of its business

Horizontal separation achieved by Telstra selling its mobile networks is illustrated in Figure 4.2 as solid line (d).

Separation of Telstra's mobile services network is one way to address the competition stifling effects from Telstra not providing access to its new 850MHz mobile network.

Telstra has indicated that it will not allow access to this network, and will therefore be the only network provider capable of providing nationwide 3G services. This is likely to result in a reduction in competition for customers that require nationwide 3G services.

The regulator may declare roaming or access to wholesale services on the network. However considerable delays involved in the consideration of whether to declare roaming or the service (including agreement to price and non-price terms and conditions) is likely to take some time (previous slow declaration processes such as for the ULLS indicate that this likely to be the case).

The proposal to separate Telstra's mobile network from the rest of its businesses is aimed not just at achieving access to the network, but to reduce the ability of Telstra to leverage the market power it possesses in the fixed-line market onto the more competitive mobile services market by bundling mobile and fixed services.⁵⁶

Bundling of mobile and fixed-line services are increasingly becoming popular. The European Commission noted in a recent ruling that this is particularly likely to be the case in countries with large geographical areas.⁵⁷

⁵⁶ While this option allows Telstra to maintain mobile business as a vertically integrated entity, the existence of three other mobile competitors is likely to act as a competitive constraint.

⁵⁷ World Legal Information Institute, <http://www.worldlii.org/eu/cases/ECComm/2002/41.html#Heading109>, accessed 16 November 2006.

There is a growing trend among corporate customers to demand integrated communication solutions comprising both voice (fixed and mobile) and data communications services. In order to provide such an integrated solution, suppliers must assemble —packages of products to put before the customers. The larger the geographic scope of the services in question, the more agreements are needed to provide the services in question.

The dominance that a competitor can have through ownership of both a fixed-line and mobile network was recognized in a European Commission merger ruling between a Swedish (mobile and fixed line) and a Finnish (mobile) telecom company. The Commission indicated that:⁵⁸

...the Commission's investigation has shown that the proposed transaction will increase the merged entity's ability to leverage its strong positions in the mobile communications services market in Finland, data communications services in Finland and Sweden and (international) fixed voice services in Finland through bundling into broader markets such as the market for customized corporate communication services in Finland and Sweden.

Structural separation as a remedy for sabotage

There are some comments in the literature suggesting a policy of structural separation may reduce the amount of sabotage because the upstream firm does not consider downstream profits and vice versa.⁵⁹

While sabotage is unlawful, it is difficult to observe and redress and is costly to pursue. Structural or incentive-based regulation is therefore the most appropriate remedy. A vertically-separated monopolist in fixed line wholesale services that also competes in other telecommunication service markets will still have an incentive to raise prices and engage in exclusionary behaviour. These actions are, however, easier to regulate than sabotage which is often difficult to observe.⁶⁰

4.2 Second-best alternatives to structural separation

Recognising both the benefits of structural separation (and the costs), many countries have imposed other forms of control, which seek to achieve some of the effects of separation without actually requiring actual separation of the entity.

The main alternatives to actual structural separation are:

- *accounting separation* — a requirement on the regulated firm to prepare separate accounts for its competitive and non-competitive businesses; and
- *operational separation* — a requirement that separate activities be carried out within separate, distinct divisions of the regulated firm.

Accounting separation seeks to separate the accounts Telstra's wholesale and retail businesses. This has not proven to be effective, as admitted by the regulator:⁶¹

The ACCC has previously highlighted its concerns that the enhanced accounting separation arrangements that were introduced in 2002 have not succeeded in giving the ACCC a satisfactory handle on the way that Telstra operates its business....

⁵⁸ World Legal Information Institute, <http://www.worldlii.org/eu/cases/ECComm/2002/41.html#Heading109>, accessed 16 November 2006.

⁵⁹ Mandy, D. 2000, 'Killing the Goose that Laid the Golden Egg: Only the Data Knows Whether Sabotage Pays', *Journal of Regulatory Economics*, 17, pp.152-172;

⁶⁰ While prices are easily regulated exclusive dealing may be difficult to show in a court, it is, however, at least observable.

⁶¹ Ed Willett, ACCC Commissioner, 2005, Speech at Australian Telecommunications Summit, 'Update on recent regulatory developments in the telecommunications market', Sydney, 27 July.

The government introduced legislation for the operational separation of Telstra, following a government review of the telecommunications regime in 2005. There are serious doubts as to the ability for operational separation (as proposed for Telstra) to work smoothly. Operational separation requires that Telstra provides access to key network services to its wholesale competitors on equivalent terms and conditions to those which it provides to its own retail business. This requirement is consistent with the obligations that Telstra already faces under Part XIC of the Trade Practices Act.

The problem with these forms of separation is that while these may assist the regulatory authorities in detecting and preventing discrimination, they do not address the underlying incentive to restrict competition. Beard, Kaserman and Mayo (2001) show that policies such as mandatory accounting separation will have little or no effect on the profitability or otherwise of sabotage.⁶²

In addition, the ACCC still has an uphill battle to ensure non-discriminatory access. Rules mandating open access and comparable treatment (as set out in Part XIC of the Trade Practices Act) are particularly difficult to monitor and enforce in the telecommunications industry because, to succeed, the rules must constrain infrastructure owners to ignore their economic interests (that is, their interests in pursuing monopoly rents). Ensuring that the services and prices the integrated utility provides to, and charges its competitors are equivalent to what it provides to, and charges itself could require virtually transaction-by-transaction regulatory oversight. Monitoring and enforcing compliance with regulations against discrimination may be particularly difficult when quality of service is time sensitive.

4.3 Costs of structural separation

There will be costs of structurally separating Telstra, these being:

- loss of economies of scale and scope;
- potentially high implementation costs, such as the one-off cost associated with the break-up of the integrated firm;
- loss of bundling advantages — a structurally separated incumbent will no longer be able to offer a cost-efficient bundled package of services;
- opportunity to reduce transaction costs — there is a cost from imposing the extra financial costs of structural separation in terms of duplication of facilities, personnel and systems with the separation of the incumbent's businesses; and
- integration may allow more efficient forms of price discrimination — by bringing the monopoly firm closer to the final consumer, integration can allow that firm to more finely differentiate its prices, enhancing overall efficiency.

There are tradeoffs involved in requiring structural separation of parts of a vertically integrated entity. Therefore there are likely to be certain conditions under which structure separation is likely to be appropriate, but also conditions under which it is likely not to be.

⁶² Beard, T R., Kaserman, L.D., Mayo, W J. 2001, 'Regulation, Vertical Integration and Sabotage', *Journal of Industrial Economics*, 49, pp.319-333.

In terms of policy, it is a question of whether the benefits of structurally separating Telstra exceed these costs. These costs are not insignificant. However, no change to Telstra's vertically integrated structure will sustain Telstra's dominance in telecommunications markets where the benefits of Telstra's continued integrated status are likely to be largely privately captured, while the costs of this integration — greater regulatory scrutiny and reduced competition — are borne by the whole economy.

In an environment of continued Telstra integration, competition in Australian telecommunications may never realise its full potential. A structurally separated Telstra offers the opportunity for a more competitive market with longer term sustained benefits in the form of better price/product offerings from a range of competitors, as well as less regulatory oversight. While an empirical analysis of benefits and costs has not been conducted in this paper, it appears likely that the benefits would significantly outweigh the costs, especially in the long run.