Reply on WLR and LCS exemptions in CBD areas

A NOTE PREPARED FOR MACQUARIE TELECOM

In Frontier's note of September 2013[1], we noted that Telstra's supply of WLR and LCS in CBD areas is generally subject to similar kinds of competitive pressures as in other non-CBD areas. In particular, there is a significant sub-set of consumers that wish to acquire voice only services that can only be economically supplied using Telstra's existing copper lines, and for whom Telstra therefore controls a bottleneck input. We therefore found that it would promote the long-term interests of end-users (LTIE) for the existing exemptions for CBD areas to be removed. Telstra has submitted a response to other parties' submissions on this issue. Macquarie Telecom has further asked Frontier to consider whether Telstra's submission is salient to the ACCC's declaration considerations.

Summary

- Telstra's prices for WLR services in CBD areas are more than $8 per SIO per month or 44 per cent above the average costs of supplying services across its network, and over $20 (over 250 per cent) above its average cost of supplying services in CBD areas.
- Contrary to Telstra's submission, prices for WLR services have not remained constant and access seekers have faced an increase in the prices in recent years. At the same time, retail prices for basic access and PSTN services have been falling.
- The high price levels and recent price rises have not been undermined by substitution towards other services that provide WLR and LCS-like functionality. We use a critical loss analysis to show how it has been profit maximising for Telstra to raise its price for WLR in CBD areas above $22; namely, that much of the substitution away from WLR services would be expected to go to services retailed by Telstra.
- Telstra's analysis and evidence of market structure and substitution do not provide a cogent explanation of how its higher prices for WLR in CBD areas could be consistent with competitive behaviour.
- The competitive impact of the higher prices for WLR in CBD areas is that access seekers are less able to compete effectively with Telstra in the retail

[1] Frontier Economics, *Service definitions for Wholesale Line Rental and the Local Carriage Service*, September 2013, available at www.accc.gov.au

market for supplying voice- only customers, or customers with a significant demand for PSTN lines.

- We therefore see no reason to deviate from our earlier findings that it would promote the long-term interests of end-users for the exemptions for WLR and LCS in CBD areas to be removed from the declaration.

Introduction

In this note, we address two specific points in Telstra's response to the ACCC:

- that Telstra's behaviour with respect to the supply of WLR and LCS in CBD areas is indicative of the strength of competition in the fixed line market
- that market share and other structural indicators of competition are sufficient measures by which to assess the effectiveness of competition in the supply of WLR and LCS services (or equivalents)

We address these matters by first summarising the evidence on the nature of the WLR and LCS problem, and then analysing why Telstra's analysis of markets and substitutes cannot explain the observed problems. We then use market data to show that there are in fact strong incentives for Telstra to price WLR and LCS services in CBD areas at high levels, and that we could expect this to have material impacts on competition for end users that wish to acquire voice- only services.

The WLR and LCS pricing problem

The problem faced by access seekers can be stated simply. The problem is that prices for WLR services in CBD areas are significantly above Telstra's (average) cost of supply. The nature of these services as essential inputs for the supply of retail services to certain kinds of customers means this pricing has a distorting impact on competition between Telstra and access seekers. This distortion reduces competitive intensity and ultimately means higher prices for end users.

There is no further evidence to suggest that prices might fall in future; on the contrary, the evidence suggests that – contrary to the ACCC's earlier expectations[2] – Telstra has been able to increase wholesale prices in these areas even as retail prices have been falling.

As highlighted in the following chart, the ACCC's fixed line services model (FLSM) produces an average cost for WLR of around $23 for 2013/14.

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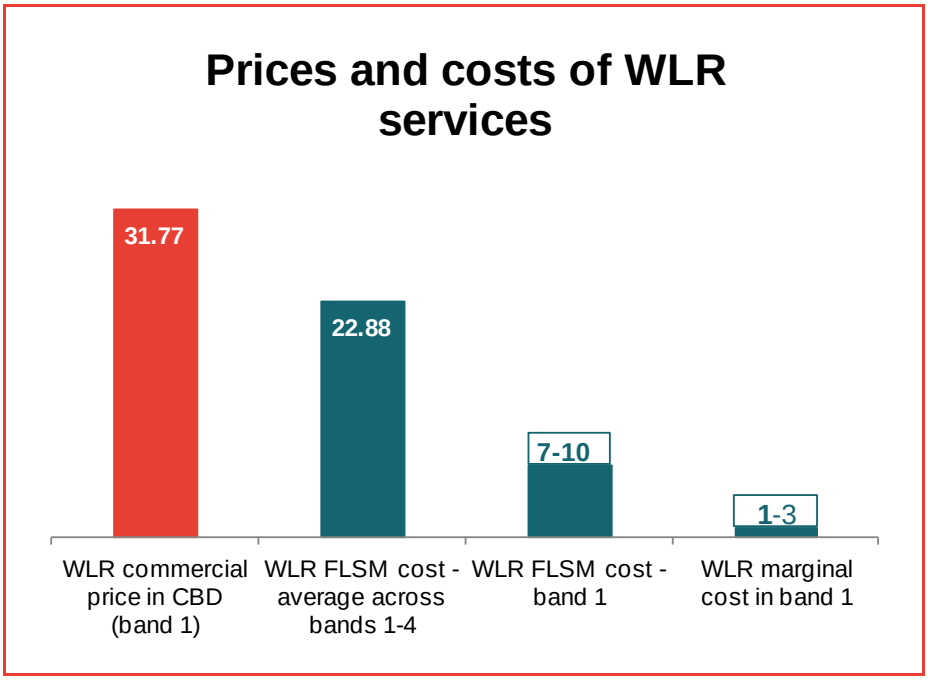
2 The ACCC said in July 2006 that: "It is appropriate to recognise the ACCC's previous conclusion that, in the CBD areas of Sydney, Melbourne, Brisbane, Adelaide and Perth, there is sufficient alternative local access infrastructure and declared services, such as the ULLS, to provide a constraint on Telstra's prices for WLR and the LCS…".

However, this significantly overstates average costs in these areas, which are likely in the range between $7 to $10.[3] Of course, the marginal costs to Telstra of supplying this service, which is a better measure of the price Telstra implicitly charges to its retail business, would be even lower than this.[4] We have previously calculated that access seekers are likely to pay over $4 million a year in excess charges for WLR services in CBD areas.

Figure 1: Costs and prices for WLR in CBD and other areas



Source: ACCC FLSM

Further, and contrary to Telstra's submissions, there has been an effective increase in the price paid by (at least some) access seekers. As we noted in our report in June 2011:

> The fact, at least as applicable to Macquarie Telecom, is that there has been an increase in the price of (business) WLR services in exempt areas from [c-i-c] ✂ [end c-i-c] to $31.77 per month…. That the 'standard' or 'headline' price charged by Telstra may have remained the same is irrelevant when access seekers have not paid that price previously.[5]

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3 See Footnote 16.

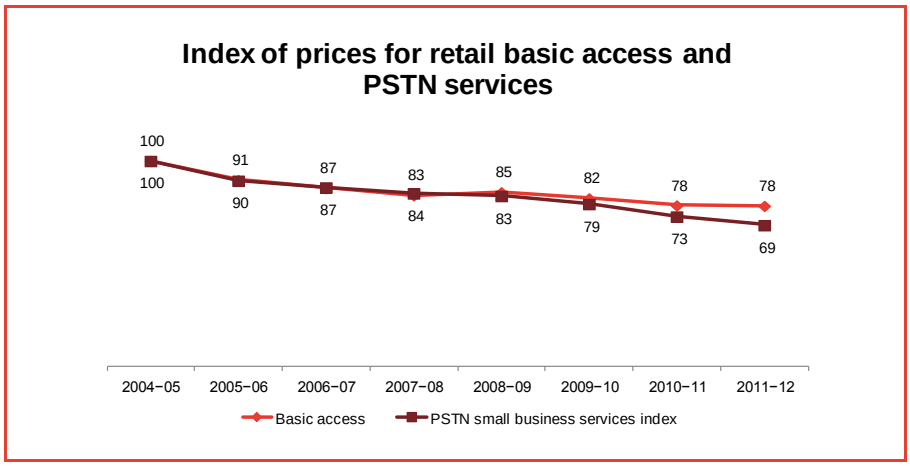
4 The Analysis model of the fixed line network commissioned by the ACCC produced a LRIC of less than $4 for WLR in Band 1 in 2012.

5 Frontier Economics, Reply report on Telstra submissions supporting geographic exemptions from access regulation, November 2011, p.7.

The increase in WLR charges is occurring in the context of falling retail prices

The wholesale price increase may be contrasted with the general trends of falls in retail basic access and PSTN prices over the past few years, as demonstrated below. Since 2004-05, retail prices for small business users have fallen – basic access has fallen by 22 per cent, and the full retail basket by 31 per cent.

Figure 2: Prices changes for basic access and the bundle of PSTN services, small business users



Source: ACCC Division 12 reports, 2011-2012

The net effect of these trends is:

- retail prices for PSTN services, including basic access, to small business users have been falling[6]
- regulated wholesale costs and charges have been falling due to the ACCC's removal of exemptions
- unregulated wholesale charges (in CBD areas) have been *increasing* and are now 44 per cent higher than in non-regulated areas. That is in spite of the WLR costs likely being more than 50 per cent lower in CBD areas than the average across all bands.

These trends do not look consistent with competitive market behaviour – rather, it appears more consistent with a pattern of behaviour that is designed to make competitors' offerings in CBD areas uncompetitive with Telstra's own retail offerings.

6 These trends also apply to larger business and residential users, with minor differences.

WLR pricing trends and price levels are not consistent with competitive constraint

In effectively competitive markets, prices are determined by cost and demand factors. The fact that prices that are higher in CBD areas where costs are much lower than average appears inimical to competitive pricing. Nor could such a pricing pattern be justified by differences in demand patterns (e.g. due to higher willingness to pay in CBD areas than in other areas), as Telstra charges the same PSTN retail prices in both CBD and other areas.

As we go on to discuss, rather than comment on pricing behaviour, Telstra's submission primarily seeks to focus on 'threshold questions' of the applicability of regulation. Its comments on its behaviour with respect to WLR and LCS supply in CBD are limited to observations that:

- Telstra does not refuse access to these services, even though it would be entitled to do so
- Telstra has not raised its prices in those areas, and has kept these constant for the past eight years.

On the issue of access refusal, we note that the supply of access itself carries little weight in the consideration of declaration. As the ACCC has previously noted:

> In general, declaration of a service can serve the LTIE in two ways. Firstly, it can ensure access to bottleneck inputs is granted where it would otherwise be denied by the incumbent. Secondly, even where access is offered, declaration can better ensure that access is given on reasonable terms…
>
> …at a minimum, the presence of commercially negotiated outcomes would appear to indicate that access per se will not result from declaration (and hence the first basic concern of declaration is removed). However, the presence of commercial agreements does not mean that the terms and conditions underpinning these outcomes are consistent with the LTIE, and that market failure won't occur. To illustrate, monopoly providers can set terms and conditions different to those expected in competitive markets which ultimately purchasers may be forced to accept. The mere existence of agreement between buyers and sellers in these circumstances does not guarantee that these terms and conditions are consistent with the LTIE.[7]

We have also noted that the notion that prices have remained constant is incorrect.

Our view is therefore that Telstra's observations should carry little weight compared to other information that more directly bears on competition and

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7 ACCC, *Final Decision on whether or not a Line Sharing Service should be declared under Part XIC of the Trade Practices Act 1974*, August 2002, p. 62.

market efficiency; in particular, that prices for WLR and LCS are likely to be well above any reasonable measure of cost.

The relevance of structural criteria to the ACCC's decision

Telstra's submission focuses on market structural criteria and the concept of enduring bottlenecks to argue that the CBD exemptions should remain. In particular, Telstra argues that market share and other structural market data, together with the availability of alternative inputs for WLR and LCS at both wholesale and retail levels, are indicative of competition and which obviates the need for declaration.[8] These alternative inputs include not only ULLS, but also DTCS, ISDN, fibre-based and wireless services.

In response, we make two points.

The first point is that relying on market shares and structural market analysis makes the market definition and the analysis of substitutes critical. If the market definition is limited to the supply of (inputs to) voice only services, then the conclusions drawn will be quite different to those drawn by Telstra. Under a narrower market definition confined to WLR and LCS services supply to voice-only users, Telstra has an effective monopoly due to the lack of commercial (as opposed to technological) substitutes.[9]

The second point is that Telstra's statements and evidence on structural factors and substitutes cannot explain the high prices we observe. As a general proposition, we accept that the focus on structural criteria to analyse market competitiveness and the need for regulation is reasonable. The primary reason is that market evidence on conduct and performance are usually more difficult to interpret than the more objective structural data. That said, by focusing only on structural criteria such as market shares and possible substitutes, Telstra avoids the question of how to interpret actual market performance data – like prices and profits – which look very high relative to the (average) cost of supply.

We submit that the most obvious interpretation of the high prices is that they indicate the analysis of structural barriers to entry or expansion has been deficient; barriers have either been missed or understated. These barriers must mean that competitors to Telstra cannot produce WLR or LCS equivalents in CBD areas for customers that *only want voice lines* at comparable cost to Telstra. Otherwise, prices could never have reached their current level. Indeed, access seekers supplied a great deal of data about the costs of replicating WLR and LCS

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8 Telstra, *Fixed Services Review: Response to other parties' submissions*, 25 October, pp.3-5.

9 As discussed in the Frontier submission, September 2013, p. 4.

in 2011 when the exemptions for certain exchange service areas outside of CBD areas were withdrawn. This evidence showed that it is not simply a question of the availability of the ULLS or fibre networks. To provide WLR and LCS equivalents also requires investments in PSTN switching or emulation, and there are no currently-effective substitutes for many special services such as alarms, EFTPOS and other special services.

We can also observe that the UK telecommunications regulator, Ofcom, drew similar conclusions about the availability of substitutes in its most recent reviews of fixed-line regulation. In particular, it noted that:

> MPF [ULLS] is inherently less efficient than WLR for the provision of voice only services…[10]

> there is a material group of users for whom MPF LLU is not suitable for voice access and who therefore have limited alternatives to BT's WLR – notably voice-only customers and some customers purchasing voice and broadband separately (including many business users).[11]

Ofcom maintains obligations on BT across the UK for the supply of WLR services.

The incentives to price WLR and LCS services at above-competitive levels are strong

Telstra is able to price wholesale services at a level well in excess of regulated prices in other areas, and well above its average costs of supply in CBD areas. The primary reason is that the market is characterised to a significant degree by captive retail customers, who are reliant on PSTN lines for particular services, or who have little interest in taking up VoIP-based services in combination with a broadband service.

This interpretation is supported by the ACCC's most recent data which continues to show that there has not been a dramatic fall-off in PSTN voice lines, indicating that access substitution towards VoIP is relatively slow.[12] In CBD areas, it appears that there are still more than 150,000 PSTN voice- only SIOs; more than 60 per cent of total SIOs in CBD areas served on the copper network.[13]

That said, we recognise that even a large number of 'captive' users does not necessarily mean that Telstra can price wholesale and retail PSTN services at

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10 Ofcom, *Charge control review for LLU and WLR services*, March 2012, at 5.72.

11 Ofcom, *Fixed Access Markets consultation*, July 2013

12 ACCC Competitive Safeguards 2011-2012, p.11, available at www.accc.gov.au.

13 Telstra CAN RKR snapshot, September 2013, available at www.accc.gov.au.

excessive levels. That is because it is the behaviour of marginal consumers (those responsive to price changes) that determines whether high prices are sustainable. The question is better posed as: if Telstra set prices at above competitive levels, would a sufficient number of PSTN users switch to VoIP services to make the price increase unprofitable?

On this question of substitution, we can observe that when Telstra raises its wholesale prices for WLR and LCS and this is passed through to end users[14], user substitution will be towards:

- Telstra's competitors using ULLS as inputs and providing VoIP services
- competitors using other infrastructure (fibre, fixed wireless, mobile wireless)
- Telstra's VoIP and ISDN services (whether run over copper or fibre)
- Telstra's PSTN services

While these first two substitutes will reduce Telstra's sales and profits, the latter two substitutes offset the loss of WLR and LCS margins.

The net impact of the two effects may be examined through the lens of a 'critical loss' analysis. Critical loss analysis is a tool that helps quantify the magnitude of switching that would be required to prevent prices rises of say 5-10% above competitive levels. This estimate of critical loss can be compared with estimates of likely actual loss in the event that the price rise occurs. Importantly, the critical loss measure can also be adapted to account for diversions of sales to a vertically-integrated firm's downstream arm, which is important in the current context where losses of WLR customers can provide a benefit to Telstra.

A relatively simple critical loss analysis, of the form described in Annex 1, is sufficient to show that:

- If Telstra did not factor in gains to its retail business from higher wholesale prices in CBD areas, the critical loss of SIOs to make a price rise unprofitable would only be around 10-12 per cent of WLR SIOs.
- Offsetting gains to Telstra's PSTN and non-PSTN retail business dramatically increase the critical loss estimate. Once the gains from consumers switching towards Telstra are taken into account, the likely critical loss of customers from raising WLR prices from competitive levels would *very likely triple* (to more than 30 per cent of WLR subscribers).
- This means that a material proportion of WLR subscribers would need to switch to make a price rise unprofitable, which seems highly unlikely given what we know about these customers. We should therefore not be surprised

14 We consider it reasonable to make the assumption that access seekers are all effectively price takers in the retail market, and therefore fully pass through cost increases.

that Telstra has been able to implement and sustain a price rise that leaves prices well above average costs.

- If we assume the competitive price for WLR services in CBD areas is around $23 per SIO per month (based on recovery of average costs across Australia), then a postulated 10 per cent price rise would increase prices to around $25. Even that post price-rise price is well below current WLR charges in CBD areas of $31.77 – indicating that the *actual* loss of subscribers has been well below the critical loss level in these areas.

The effects on competition are material

The ACCC has previously accepted that high prices for WLR services will hinder competition between Telstra and access seekers:

> The ACCC considers that the continued supply of WLR at prices higher than the FAD prices in exempt ESAs would likely be detrimental to retail competition. Access seekers would face higher wholesale costs than Telstra, which is able to self-supply WLR.[15]

Notably, the effects on competition are likely to be significant regardless of whether the higher WLR charges are passed on directly to end users as higher basic access charges. Higher basic access charges will cause substitution towards Telstra's retail services, and weaken Telstra's incentives to lower prices. If, instead, the higher prices in CBD areas are absorbed in basic access charges, the lower margins or losses will weaken the ability of competitors to offer lower-priced bundles of access and call services in competition with Telstra. Both forms of conduct 'soften' competition in the retail market between Telstra and access seekers.

We understand that Macquarie Telecom will present some examples to the ACCC to illustrate how these effects are currently manifesting.

15 ACCC, *Inquiry into varying the exemption provisions in the final access determinations for the WLR, LCS and PSTN OA services*, Final Report, December 2011, pp 99-100.

Annex: Critical loss analysis of wholesale price rises for WLR in CBD areas

A key question for the ACCC is identifying whether switching behaviour is likely to undermine Telstra's ability to increase prices for WLR services in CBD areas from competitive levels. In this annex, we use a basic critical loss analysis to show that there are strong incentives for Telstra to raise unregulated prices for WLR services.

Critical loss analysis is a quantitative tool or technique that can be used to help to analyse prospective switching behaviour; it is ordinarily used to help define product and geographic markets, or better understand the ability of merging firms to increase prices post-merger. Critical loss analysis is closely related to the 'SSNIP' test. The SSNIP test is a thought experiment that says: if a firm, or group of firms, raise price by 5-10%, would there be sufficient substitution away to make that price rise unprofitable? In undertaking the SSNIP test, the obvious question that arises is how much is 'sufficient substitution'? Critical loss gives us a quantitative answer to that question.

The critical loss is the number or percentage of customers who would have to respond to a price rise by switching to another service (or ceasing to purchase entirely). The *actual* predicted loss from the price rise can then be compared with this *critical* loss; if actual lost volumes are predicted to be greater than critical loss volumes, one concludes that it is unlikely that a postulated price rise (above the competitive level, or from a pre-merger price) will occur.

The standard formula to calculate the critical loss is as follows.

$$CL\% = \frac{x}{x + m}$$

where CL% is the critical loss percentage (of sales that must be lost for the price rise to be breakeven), x is the price rise (usually 5 or 10 per cent), and m is the price-cost margin on the product, usually calculated as price less marginal cost divided by price.

This formula can be adapted for a firm supplying into a wholesale market, where we expect that some of the substitution that occurs goes to Telstra's retail business. The key additional information required is a diversion ratio – an estimate of the percentage of lost sales that goes to Telstra's retail services.

A critical loss analysis relies on a small number of data points; the key inputs include:

- Telstra's margins earned on WLR and other retail service sales (retail VoIP or retail PSTN), which depends on the marginal costs of supply and the base price (to which the price increase is applied)

- estimates of where the switching customers go (i.e. to which services and suppliers do they substitute?), which is ordinarily based on estimates of market shares or other market information

Our analysis of these questions is based on the data and other assumptions set out in the table and figure below.

Table 1 Inputs into the critical loss analysis for WLR

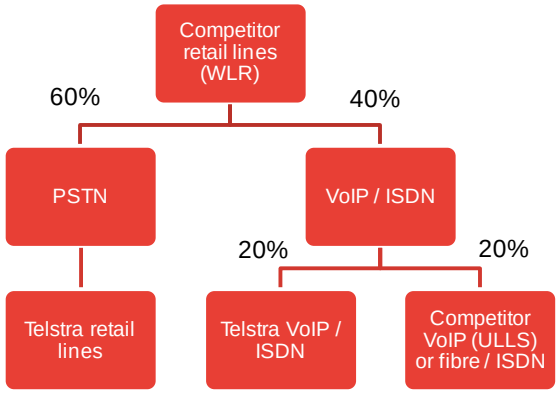
Input	Description and source	Value
Assumed WLR competitive price level	Average cost across all 4 bands based on FLSM	$22.88 pcpm (1)
Marginal cost in CBD areas	Average cost is likely to be between $7-10 marginal cost will be somewhat lower than this[16],	$5.00 pcpm (2)
Price increase	% price increase from the competitive level	10%
Margins ($ per month per customer)	WLR margin = (1) – (2)	$17.88 pcpm
	VoIP and PSTN retail $ margins for access services, assumed to be same as WLR margin	$17.88 pcpm
Proportion of WLR lines to total lines in CBD areas	% of total PSTN lines in Band 1 (same proportion of WLR lines to total lines)	13%
Diversion of WLR customers to other services	Share of volume that diverts to VoIP / ISDN, based on existing line shares from FLSM	40%
Diversion to Telstra PSTN	Telstra picks up all customers that switch to other PSTN supplier (as all WLR access seekers face price increase)	60%
Diversion to Telstra non-PSTN	40% non-PSTN share * Telstra's likely market share of non-PSTN	20%
Total diversion to Telstra retail sales	Sum above	80%

Notes: pcpm = per customer per month

The figure below summarises how we have split the diversion of WLR volumes to other services.

16 TSLRIC+ estimates produced using the PIE II and TEA models give costs of less than $7 for the ULLS for 2009. See ACCC, *Draft pricing principles and indicative prices for LCS, WLR, PSTN OTA, ULLS, LSS,* August 2009. The WLR average cost is likely to be slightly higher than the ULLS price, plus there are likely to be some differences with cost allocation and asset valuation in the FLSM compared to the TSLRIC estimates. As noted earlier, the Analysys model produces WLR TSLRIC costs of less than $4 for 2012.

Figure 3 Diversion of sales from WLR to substitutes in critical loss analysis



The modified breakeven or critical loss calculation is: based on calculating the point at which further price rises would become unprofitable, based on weighing up the gains from the higher prices (margins) with the losses from fewer customers, who switch in response to the price rise.

The Critical loss % percentage of sales can be expressed as $= \frac{N-\hat{N}}{N}$

Where N is the base level of WLR SIOs, and the number of new SIOs N^ is such that:

$$Pre\ price\ rise\ total\ margin = Post\ price\ rise\ total\ margin$$

$$N.Margin_{WLR} = 1.1.\hat{N}.Margin_{WLR} + N_{nonPSTN}.Margin_{nonPSTN} + N_{PSTN}Margin_{PSTN}$$

If we ignore the gains in margin from switching to Telstra's non-PSTN and PSTN services, the critical loss is only 11.5% – a function of the high margins in serving customers in CBD areas with WLR. That is, only a relatively small loss of customers would be required to defeat a price rise because each customer is very profitable. However, taking account of switching into other Telstra services raises the critical loss value substantially, to over 30%. This is robust to different values for key inputs.[17]

The point of this exercise has simply been to demonstrate that Telstra's incentives to raise and/or maintain high prices for WLR and LCS services in

17 This result is robust to alternative values for key inputs. For example, increasing the diversion ratio to non-PSTN services to 50 per cent and lowering Telstra's expected share of these non-PSTN services to 30 per cent changes the critical loss down to 27 per cent.

The assumption with the most significant impact on the results is the dollar margin associated with Telstra's retail supply of PSTN basic access. The assumption we conservatively use here is that the margin on retail basic access sales is no more than the margin when supplying WLR, even though some further retail margin is likely. Higher PSTN retail margins substantially increase the incentive to raise WLR prices.

CBD areas are much stronger once we take into account likely substitution towards Telstra's retail services. It is of course very difficult to distinguish the *actual* losses of WLR from high prices in CBD areas and those from broader market changes. However, the fact that Telstra has been able to raise prices to nearly $32 per month in CBD areas indicates Telstra believes that the proportion of voice only customers responsive to high prices in these areas is far lower than 30 per cent.

Finally, we also note that this exercise could also be undertaken for bundles of wholesale inputs including WLR and LCS and to use retail margins relating to retail bundles of access and calls. These changes would change the margins and the critical loss values somewhat. However, we do not believe such changes would not materially affect the results presented here, as we have assumed that margins on WLR are very high (over 75%) and so already produce base critical loss values that are low.