Submission 2

This submission to the ACCC represents the private views of group supporting Telecommunications Deregulation.

Why the ACCC should set averaged ULLS prices

Executive summary

The ACCC should not regulate ULLS because the Telecommunications market is competitive.

If the ACCC does price regulate, it should set geographically averaged prices to access Telstra's Unbundled Local Loop Service (ULLS).

The results of a very simple modelling exercise show that de-averaging ULLS prices causes:
- Inefficient downstream entry, so society's costs of telecommunications are a lot higher, causing large welfare losses
- An efficient access provider to become insolvent. So de-averaged ULLS prices violate a basic principle of regulatory decision making: that an efficient incumbent must at least be able to recover prudently incurred costs.

All of the standard arguments against geographically averaged ULLS prices, such as that it causes inefficient investment or reduces efficient downstream entry etc, can be shown to be either economically wrong, or, irrelevant.

Introduction
Consider a very simple model of a fixed telecommunications network, where there are two customers: one in a high cost area, the other in a low cost area.

Telstra has a geographic averaging constraint on it, so it must charge the same price to both Low Cost Customer A and High Cost Customer B. Therefore, Telstra cannot raise prices to people in the high cost area unless it lost all of its customers in the low cost area. And, in practice such an outcome will not occur, because it is likely to retain at least some customers in the low cost area even if competitive entry occurs.

In addition, Telstra has a retail price control on it. So, in practice, even if it lost all of its customers in the low cost areas to competition it cannot raise prices in the High Cost area because the retail price control would be binding.

Against this background, we can now analyse the proposal to charge de-averaged prices to Telstra's competitors for the Unbundled Local Loop Service (ULLS).

Table 1: Simple model inputs:

Simple model of ULLS

Low cost area (Customer A)		High cost area (Customer B)	
Telstra network cost	40	90	
Telstra retail cost	10	10	
Competitor retail cost <	22.5		
Telstra total costs of serving		150	

Telstra average retail price necessary for cost recovery across network
75

The inputs for the simple model are shown in Table 1. Telstra's network costs are 40 per customer in the low cost area, and 90 per customer in the high cost area. Retail costs in both areas are 10 for Telstra. Therefore, total costs of serving two customers, one in each area, is 150.

Let us suppose, for simplicity, there is the same number of customers in the high and low cost area. Therefore Telstra, when restricted to charging parity prices across geographic areas, must charge at least 75 per customer to achieve cost recovery.

Suppose now the ACCC sets geographically de-averaged prices for the network to Telstra's competitors. Specifically, competitors can access Telstra's network for a cost of 40 in the low cost area, and 90 in the high cost area.

Results from the simple model
Competitors will enter in the low cost area provided they can beat Telstra's retail price of 75. Therefore, so long as competitors' downstream costs are less than 35 = (75 – 40), they will attempt entry.

Inefficient downstream entry will occur: Suppose a competitor has a downstream retail cost of 15, so it is $5 more inefficient than Telstra. Given a $40 access price, the competitor can enter, and set the retail price in Area A at 55.

Now suppose Telstra responds and drops its price in Area A to 55. Telstra will then have to pass on the lower price of 55 to the high cost Customer B consumers. Therefore, if Telstra meets the competitive entry it loses, in total, $40. It has $110 of revenue and $150 of costs.

By contrast, if Telstra does not meet the competition, it only loses $25. In the low cost area it achieves cost recovery, and in the high cost area it has a price of 75 and costs of 100. So, Telstra is better off not meeting the competitors' prices in low cost area A, because it is also required to then reduce prices in the high cost area. A loss of 25 is better than a loss of 40.

So the necessary outcome of the ACCC pursuing a policy of de-averaged ULLS prices is inefficient downstream entry in the low cost area **will** occur. Such inefficient entry will not be driven out by Telstra. Society is worse off, because it incurs 5 of extra production costs, with no gain. So the de-averaging rule is inconsistent with the long-term interests of end users.

The incumbent cannot achieve cost recovery
Another very interesting result emerges from the simple model. If there is any attempted entry in the low cost area, the incumbent provider is necessarily driven to insolvency by the de-averaging rule. It cannot achieve cost recovery. The basic reason is: the incumbent can only earn "average cost" in the high cost area, and necessarily earns below average cost in the low cost area, so, all up, it cannot achieve total cost recovery. In the numerical example given, Telstra achieves a loss of 25 not meeting the competition, and a loss of 40 if it does not. There is nothing Telstra can do to achieve cost recovery. It becomes insolvent whether it meets the competitions prices in the low cost area or not.

So an ACCC rule recommending de-averaged ULLS prices is necessarily inconsistent with a basic principle of setting access prices: an inefficient provider of service must at least be able to achieve cost recovery.

Welfare loss to society is high
The welfare loss to society from de-averaged ULLS prices is high:
- Production costs at retail level are higher because of inefficient entry
- The incumbent is driven bankrupt and has no incentive to invest in the network
- Prices in city areas are lower than prices in country areas, which is inconsistent with government policy that there should be price parity between city and country areas.

Table 2: Results from simple model

Summary of simple model

Telstra cost in low cost area	50
Maximum competitor total cost in low cost area where it will still actually enter	62.5
Extra costs to society	12.5
Extra cost inefficiency as a proportion of production displaced	125%
Maximum competitor downstream cost where no attempted entry	35
Telstra downstream costs	10
Extra inefficiency required for no entry and Telstra remaining solvent	250%

The key results from the simple model are shown in Table 2:

- Telstra will meet the competitors' price down to 62.5 in the low cost area, thereafter it will let the customer go to the competitor. So competitors can enter the market provided their retail costs are no greater than 22.5, or 12.5 more than Telstra whose retail costs = 10. Competitors can have up to 125% higher costs at retailing than Telstra, and they will be still able to successfully enter the market under a de-averaged ULLS price.
- Competitors will attempt entry in the low cost area provided their retail costs are no greater than 35. So Telstra is driven insolvent unless competitors are 250% more cost inefficient at retailing than Telstra.

The USO compensation scheme does not change the results of the model.
It can be shown that the existence of the USO compensation mechanism, somewhat mitigates the results in the simple model. But it does not change any of the core results or propositions: inefficient entry does occur, and the incumbent is driven insolvent.

Under the USO, all telecommunications providers contribute to the cost of servicing loss making customers. The net cost is determined by a methodology called Net Universal Service Cost or NUSC, which equals revenue less net avoidable cost from serving the customer. Each firm's contribution to this cost is determined by the firm's telecommunications revenue divided by total telecommunications revenue.

In the modelling attached, see spreadsheet USO Conservative, I have considered two cases with the USO: a conservative and a realistic case.

The conservative USO case
In the extremely conservative case I have made the assumption TSLRIC = Avoidable Cost (to maximise the potential competitor contribution to Telstra). In practice TSLRIC will be greater than Avoidable Cost, because TSLRIC includes mark-ups allowing for common cost recovery.

Results from conservative model
Summary of USO conservative model

Telstra cost in low cost area	50
Maximum competitor total cost in low cost area where it will still actually enter	56.5
Extra costs to society	6.5
Extra cost inefficiency as a proportion of production displaced	65%
Maximum competitor downstream cost where no attempted entry	22.5
Telstra downstream costs	10
Extra inefficiency required for no entry and Telstra remaining solvent	125%

The results from the conservative model are:
- Competitors will actually enter in the low cost area provided they are no greater than 65% more cost inefficient than Telstra. That is, so long as competitors' costs in the downstream market are under 16.5, or less than 6.5 more than Telstra they will still enter.
- Competitors will attempt entry provided they are no more than 125% more inefficient than Telstra. So Telstra is driven insolvent by the ACCC de-averaging rule unless competitors' costs are 12.5 more than Telstra in the downstream market.

The realistic USO case
In the realistic USO case, see USO realistic spreadsheet, I have made the assumption
Avoidable Cost = 90% of TSLRIC.

Results from realistic model

Summary

Telstra cost in low cost area	50
Maximum competitor total cost in low cost area where it will still actually enter	63.8
Extra costs to society	13.8
Extra cost inefficiency as a proportion of production displaced	138%
Maximum competitor downstream cost where no attempted entry	27.5
Telstra downstream costs	10
Extra inefficiency required for no entry and Telstra remaining solvent	175%

The results from the conservative model are:

- Competitors will actually enter in the low cost area provided they are no greater than 138% more cost inefficient than Telstra. That is, so long as competitors' costs in the downstream market are no greater than 13.8 more than Telstra they will still enter. So the ACCC de-averaging policy promotes inefficient downstream entry.
- Competitors will attempt entry provided they are no more than 175% more inefficient than Telstra. So Telstra is driven insolvent by the ACCC de-averaging rule unless competitors' costs are 17.5 more than Telstra in the downstream market.

Appendix 1: Why the argument against averaging are wrong or irrelevant

Arguments against the results derived from the simple model
Proposition: Telstra earns excess monopoly profits. So whilst a de-averaging would drive a normal incumbent insolvent, all it does in the case is reduce Telstra's monopoly profits.

There are several problems with this argument.
No monopoly profits
Firstly, Telstra does not earn monopoly profits, so the proposition is empirically incorrect. Telstra has returned less than half the return on the stock market since listing, and it is currently trading in the market below the replacement cost of its assets (see previous submission of Mr Derek Francis). If the ACCC is to seriously run the argument then it bares the onus of proving that Telstra's current market value plus net debt (economic value (EV)) is above the forwarding looking replacement costs of its assets. The ACCC would need to detail all of Telstra's assets, measured at today's replacement cost, and show this value is less than EV. It is a burden the ACCC would be unable to discharge because, as discussed in my previous submission, the cost of trenching and copper has dramatically risen recently. So Telstra has no monopoly profits in the way economists would define the proposition.

Telstra is still driven insolvent and inefficient entry occurs
Secondly, it can be shown, even if Telstra does earn monopoly profits, de-averaging is still the wrong economic rule for ULLS. It promotes inefficient entry in the downstream market in low cost areas causing welfare losses. And the rule still results in incumbent bankruptcy, unless it can be proven that Telstra earns monopoly profits *in the high cost area*. To see this, consider again the Simple Model, and Telstra now charging 80 to customers in area A and B. So it earns 10 of monopoly profits in total from serving two customers (80-75) * 2 = 10. Now if the ACCC sets de-averaged retail prices, Telstra loses the low cost customer to a competitor. And its monopoly profit of 10, becomes a loss of 20. Telstra is driven bankrupt under de-averaged ULLS unless it is already achieving cost recovery in the high cost area. Now, all credible estimates indicate Telstra does make losses from serving high cost customers. So the ACCC de-averaging rule will result in Telstra insolvency.

Retail price caps would be a superior proposal
Thirdly, it can be shown, even if Telstra is earning monopoly profits (which it isn't), the economically correct policy response is to set geographically averaged ULLS prices and use a retail price control to reduce such monopoly profits. Under de-averaged ULLS prices inefficient entry occurs, whereas this welfare loss is avoided under averaging.

Proposition: De-averaging causes inefficient bypass of Telstra's network.

There are several reasons this proposition, whilst a nice theory, is basically irrelevant to the issue of setting ULLS prices.

Firstly, there is, in practice, no facilities based investment in fixed telecommunications networks at present. A major reason for no investment is because of ACCC regulations setting the price of access to Telstra's network below cost. And there has been no investment since 2001 even though ULLS prices commercially were then $35 or more per month. Therefore, "inefficient" bypass is not *actually* occurring.

The term "inefficient investment in telecommunications networks" is something of an oxymoron. Facilities based investment in the local loop results in sustainable competition and technological innovation which is in consumers' interests. It does not require regulation to support it, so it is preferable to the arbitraged-based, cherry-picking resale model of competition the ACCC currently proposes for ULLS.

Under the ACCC's de-averaging proposal, Telstra is necessarily driven bankrupt provided competitors make a trivial retail investment. Under averaging, Telstra may still become insolvent if there is large scale entry at both retail and network level. But, such a scale of commitment is less likely, and it is then within the purview of Government to potentially relax Telstra's geographic averaging constraint.

Let the market test the ACCC's ULLS prices
Setting averaged prices for ULLS also allows empirical testing of the ACCC's cost assertions on ULLS. The ACCC has previously suggested ULLS can be rolled out in Band 2 for $13 per month, or $22, or other equally arbitrary and low figures. Now, suppose the ACCC does commit to geographic averaging and sets a ULLS price at $30.

A new entrant, contemplating building a network, will know there is near zero chance of the Government removing the retail geographic averaging constraint on Telstra. So the new entrant can commit to building facilities, knowing Telstra cannot match its prices in low cost areas: because Telstra has to pass on such prices in high cost areas.

So presumably, if the ACCC set the ULLS at $30, we would expect to see full scale network rollout from a new entrant consortium, and or Optus turning on its HFC network. In practice, if the ACCC sets the ULLS at $30 or above, I think there is unlikely to be much investment in networks from new entrants: and the reason is because this $30 price is below the forward looking costs of building a fixed network.

Proposition: Averaging ULLS means efficient investment in the high cost areas will not occur .

It can be shown this proposition is also wrong. Lack of incentives to invest in high cost areas is caused by the geographic averaging constraint on Telstra, not "averaged" ULLS prices.

To see this, consider again the simple model. Suppose a new entrant can rollout a network in the high cost area for $80, which is $10 less than Telstra. Now the new entrant still cannot compete against Telstra's retail price of 75. So, no matter where the ACCC sets the ULLS price in high cost areas, the more efficient new entrant won't roll-out a network.

So averaged or de-averaged ULLS prices do not cause the investment inefficiency problem in the high cost area, it is the geographic averaging constraint at retail level on Telstra.

Proposition: If the ACCC uses average costs to set ULLS, Telstra will use actual costs in low cost areas when internally transfer pricing to itself, and it will prevent efficient entry.

It can also be shown this proposition is economically wrong. In fact, given a geographic averaging constraint at retail level on Telstra, the exact opposite occurs: *Telstra cannot even stop inefficient entry downstream* in the low cost area, let alone more efficient entry, because it has to pass on the lower price in the high cost area.

However, consider the case where there is no geographic averaging constraint on Telstra. It turns out the proposition is still wrong. The laws of competitive parity turn out to be extremely robust to a range of access prices. See Alfred Kahn: "The economics of regulation" 1970, "The pricing of inputs sold to Competitors: A comment" 1994 Yale Journal of Regulation, or "Whom the God would destroy or how not to deregulate", 2001.

It turns out the ACCC can set ULLS prices in the low cost areas at a range of different prices between incremental cost and monopoly prices, or above, and the laws of competitive parity still hold: The incumbent will not stop efficient entry.

To see this, consider the cost inputs in the simple model, and remove the geographic averaging constraint on Telstra, so Telstra can set prices anywhere. Suppose the ACCC sets the ULLS price at 40 in the low cost area. Telstra then prices at 50 at retail, and anyone with lower costs than 10 at retail can efficiently enter.

Now suppose the ACCC instead sets the ULLS price at 70 in the low cost area. Telstra then sets the retail price at 80, and anyone with lower costs than 10 at retail can efficiently enter. And indeed, it is within Telstra's own interests to allow more efficient downstream entry because its profits go up. Telstra faces no uneconomic incentive to "cross-subsidize" its downstream operations.

Proposition: Telstra earns monopoly profits from other services such as mobiles, which can be used to cross-subsidize the loss from ULLS de-averaging.

There is no evidence justifying such a proposition. But even if it were correct, it can be shown de-averaged ULLS is economically wrong: it causes inefficient entry. The correct response would be to put a retail price control on Telstra on the products where it earns excess profits.

Proposition: Competitors may not use ULLS for voice telephony services.
Competitors can, do and will use ULLS to supply voice telephony services to customers. Voice telephony provides, on average, $65 of revenue per line per month per customer.

If the ACCC requires Telstra to supply ULLS to competitors, it cannot stop those competitors using the ULLS to supply voice telephony services to consumers.