

Submission to the ACCC



vodafone

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**Draft MTAS Pricing Principles Determination and indicative pricing
for the period 1 January 2009 to 31 December 2011**

16 December 2008

Public version

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1. Overview

- 1.1 Vodafone welcomes the opportunity to comment on the Australian Competition and Consumer Commission (the Commission) *Draft MTAS Pricing Principles Determination and indicative prices for the period 1 January 2009 to 31 December 2011* (Draft Pricing Principles).
- 1.2 We support the proposed price related terms and conditions of 9cpm to apply from 1 January 2009 to 31 December 2011 in the Draft Pricing Principles, which provides significantly increased business certainty for access providers and access seekers for forecasting, strategic planning, service offerings, and importantly for investment purposes. The Draft Pricing Principles also ensure that Australia will be in line with European Mobile Termination Rates (MTRs) by end of 2011.
- 1.3 Vodafone agrees with the Commission that:¹
- the Commission can, and indeed should, use a number of methods to inform itself about the pricing of MTAS including cost models, international cost benchmarking, developments in other markets and actual data provided by mobile network operators (MNOs) captured under the Regulatory Accounting Framework; and
 - in circumstances where there is uncertainty surrounding the actual cost of MTAS, and MNOs have made significant investments in infrastructure including 3G technologies, it is appropriate for the Commission to adopt a cautious approach and maintain MTAS indicative prices at 9cpm for a period of 3 years.
- 1.4 The proposed price related terms and conditions of 9cpm for the period 1 January 2009 to 31 December 2011 promote the object of the telecommunications access regime in Part XIC on the *Trade Practices Act 1974* (Cth) (the Act) to promote the long-term interests of end-users (LTIE) by:
- specifying an indicative price of 9 cpm for MTAS which is between what the Commission considers are the upper and lower bound estimates of the efficient cost estimate for the supply of MTAS in Australia in the absence of reliable data as to the actual cost of MTAS in Australia;²
 - providing significantly increased business certainty for MNOs enabling them to commit to further economically efficient investment in mobile network infrastructure (including 3G technologies) resulting in an increase in the quality of mobile services available to Australian consumers;
 - minimising the risk of any increase in retail prices for mobile services to consumers from the 'waterbed effect';
 - avoiding the losses in consumer welfare and total welfare that will result from any further reduction of MTAS rates; and

¹ ACCC, Draft Pricing Principles, p20.

² ACCC, *MTAS Pricing Principles Determination 1 July 2007 to 31 December 2008 Report November 2007* (2007 Pricing Principles), p1.

- avoiding the risk that the indicative price of MTAS is below actual efficient cost and that the corresponding decrease in mobile services revenue will act as a disincentive to MNOs investing in new infrastructure to provide enhanced mobile services.

1.5 Vodafone has previously outlined concerns regarding a number of issues which remain material to the setting of MTAS rates. The Commission has now rightly concluded that further reductions in the MTAS rate below 9cpm are not in the LTIE.

1.6 The following issues must be addressed prior to any decision to revise the MTAS rate of 9cpm – issues which have been raised with the Commission in prior Vodafone Australia submissions:

- First, the Commission must undertake a proper LRIC+ cost model. Vodafone remains strongly of the view that the WIK cost model is inadequate because it:
 - Fails to consider the actual costs and market realities of network design in the Australian market;
 - Fails to include 2G / 3G hybrid network costs; and
 - Fails to consider the appropriate efficient market share benchmark.

As a result, there is no reliable cost information available that provides a robust estimate of the efficient costs of an MNO providing MTAS in Australia. The deficiencies in the WIK cost model mean that it is at best only useful in providing a floor price or lower bound estimate on the theoretical costs to a perfectly-efficient hypothetical MNO of supplying MTAS on a 2G network.

- Second, the Commission must establish that further reductions in the MTAS rate are in the LTIE. In doing this, it must consider that:
 - The lack of FTM pass through of reductions in MTAS rates (either partially or in full) since the declaration of the MTAS means that a further reduction in MTAS prices is very unlikely to result in any promotion of competition in markets in which FTM services are provided;
 - There is evidence to suggest that a further reduction in MTAS below 9cpm would result in a lack of any significant FTM pass through and the need for MNOs to rebalance retail prices; and
 - As a result of this, modelling undertaken by Vodafone suggests that any further reduction in the MTAS price could result in a significant reduction in both consumer and producer welfare.

Vodafone submits that there is no credible evidence which the Commission could rely upon to establish that a MTAS rate less than 9cpm would better promote the LTIE than a rate consistent with the Draft Pricing Principles.

2. Legislative and Regulatory Framework for Pricing Principles

- 2.1 The Commission is required to issue pricing principles relating to the price of MTAS as a declared service under section 152AQA of Part XIC of the Act. In practice the pricing principles have two main functions: (1) to assist negotiations between access providers and access seekers by providing guidance as to the Commission's views on reasonable access prices for MTAS;³ and (2) as a set of guiding principles the Commission must have regard to in determining any access disputes under Part XIC in relation to MTAS.⁴
- 2.2 Given the pricing principles' important role in facilitating access to declared services under Part XIC of the Act, they must be consistent with the object of Part XIC which is to promote the LTIE of carriage services or of services provided by means of carriage services.⁵ In considering whether the proposed pricing principles promote LTIE regard must be had to the extent to which they are likely to:⁶
- (a) Promote competition in markets for listed services;
 - (b) Achieve any-to-any connectivity in relation to carriage services that involve communication between end-users; and
 - (c) Encourage the economically efficient use of and investment in infrastructure by which listed services are supplied or by which listed services are likely to become capable of being supplied.
- 2.3 In considering the extent to which the Draft Pricing Principles are likely to encourage the economically efficient use of, and investment in, relevant infrastructure, regard must be had to the legitimate commercial interests of the suppliers of MTAS and the incentives for investment in mobile networks which supply MTAS.⁷
- 2.4 Vodafone agrees with the Commission that in making pricing principles it may also be useful to have regard to the matters the Commission has to take into account in determining an access dispute or deciding whether the terms and conditions of access in a proposed access undertaking are reasonable. These include the legitimate business interests of the carrier and the carrier's investment in facilities used to supply MTAS, and the interests of people who have rights to use the MTAS.⁸

³ ACCC, Draft Pricing Principles, p6.

⁴ Section 152AQA(6) of the Act.

⁵ Section 152AB(1) of the Act.

⁶ Section 152AB(2) of the Act.

⁷ Section 152AB(6) of the Act.

⁸ Sections 152AH(1) and 152CR(1) of the Act.

3. The WIK cost model

- 3.1 As noted in the Draft Pricing Principles, the Commission is of the view that the efficient price of MTAS can be estimated through cost based pricing. The Commission states that such pricing be based on TSLRIC+ modelling. Vodafone supports the use of TSLRIC+ modelling and considers that the Commission's adoption of a 'pragmatic' approach to the application of TSLRIC in setting indicative pricing for MTAS is appropriate and reasonable.⁹
- 3.2 The Commission has had regard to the WIK cost model in developing the Draft Pricing Principles. The WIK model adopts a scorched earth approach to modelling the network and cost structures for a hypothetical 2G only MNO to estimate the efficient cost of the supply of MTAS in Australia. We have previously outlined our concerns to the Commission about the application of this TSLRIC+ model.
- 3.3 We attach our previous submissions on the appropriateness of the WIK cost model and its use in setting the MTAS rate in Australia – *WIK Mobile Network and Cost Model and MTAS Pricing Principles Determination 1 July 2007 to 30 June 2009 March 2007* (Attachment A) and *MTAS Pricing Principles Determination 1 July to 31 December 2008 August 2007* (Attachment B).
- 3.4 Vodafone supports the approach taken by the Commission in the Draft Pricing Principles in respect of the utility of the outputs of the WIK model in setting indicative pricing for MTAS. Specifically, we consider that its usefulness is confined to providing the Commission with a data point as to the theoretical floor price on the cost of supplying MTAS on a 2G only network.
- 3.5 We outline below the key deficiencies in the WIK model, and reflect why the outputs of the WIK model mean that it should not be used as a definitive measure for estimating the efficient cost of a hypothetical MNO supplying MTAS in Australia.

The absence of actual costs underlying the WIK cost model

- 3.6 Vodafone has already expressed concerns with the WIK model's 'scorched earth approach' to the design of the efficient mobile network. In Vodafone's view, the WIK model does not reflect 'market realities' or the practical realities which would be experienced by a new entrant rolling out a network in Australia. As noted by the Commission, '*The resulting model did not necessarily reflect the structure of any operator actually operating in the market*'.¹⁰
- 3.7 As noted in previous submissions, the Australian Competition Tribunal (the Tribunal) explicitly considered the modelling requirements in Australia, and provided guidance that where cost modelling is undertaken in an attempt to determine an appropriate benchmark operator, that modelling must have regard to the market realities of operating a mobile network in Australia.¹¹

⁹ ACCC, Draft Pricing Principles, p12.

¹⁰ ACCC, Draft Pricing Principles, p 13.

¹¹ *Application by Vodafone Network Pty Ltd & Vodafone Australia Ltd [2007] ACompT 1* at paragraph [72]-[74]

- 3.8 Vodafone agrees with the Commission that the WIK model *"assumes efficiencies that may not be obtainable in a roll out under competitive conditions"*. In particular, a roll out under competitive conditions would involve the acquisition of market share over time, rather than an overnight build of a network optimised for a 25% market share such as is assumed by the WIK model.
- 3.9 In addition, the lack of operator-specific actual cost data underlying the WIK model means that significant doubt remains about the model's ability to produce estimates which reflect market realities in any event. As noted by the Commission in the Draft Pricing Principles, *'while estimates of costs in such models provide important information they cannot be considered conclusive in determining an appropriate indicative price.'*¹² As also noted, in light of the absence of actual costs, *'...TSLRIC generally provides a reasonable lower bound estimate of the cost of MTAS.'*¹³
- 3.10 This illustrates that the outputs of the WIK model are useful only as indicative of a theoretical floor of 2G MTAS rates – notwithstanding the lack of market realities and calibration of the WIK model. However, the absence of actual cost information, market realities facing actual MNOs operating in Australia and any calibration means that the outputs of the WIK model cannot be relied upon as an estimate of the efficient costs of supplying MTAS.

2G / 3G hybrid network costs

- 3.11 The WIK model uses 2G technology to estimate the theoretically efficient cost of providing MTAS in Australia. However, as the Commission notes in the Draft Pricing Principles, network operators in Australia have, and continue to, roll out extensive 3G networks.
- 3.12 Vodafone is concerned that the WIK model does not account for the costs and risks of rolling out and operating a 3G network in Australia. The costs of maintaining a hybrid (2G/3G) network along with the migration costs associated with a 3G network reflect market realities and form essential and material inputs to any calculation of indicative price – they are not considered by the WIK cost model.
- 3.13 We disagree with the assumptions in the WIK model that a 2G network is the most cost efficient delivery technology for voice services and that the cost of MTAS should not be impacted by the network over which it is delivered, because:
- Mobile operators must offer a portfolio of voice and data services in order to compete for and retain customers. This is the case even if customers do not subsequently consume these services in large quantities. Data services are particularly important in the acquisition and retention of higher value customers which are critical to sustainable commercial activities in the mobile market. It is the efficient provision of this portfolio of services that determines the choice of efficient technology (3G); and

¹² ACCC, Draft Pricing Principles, p 13.

¹³ ACCC, Draft Pricing Principles, p 11.

- No Australian network operator is pursuing 2G only, and (as far as Vodafone is aware) nor is any market leading MNO in any major OECD market embarking on a 2G only strategy. The small number of MNOs without 3G licences have secured network sharing arrangements in order to gain the 3G network capability needed to compete effectively.
- 3.14 Vodafone submits that a 2G/3G network cost base is the only one that can be considered for regulatory purposes when setting MTAS rates in Australia. The points above show that a model based on market realities is a model of an operator with a 2G/3G network.
- 3.15 Assumptions previously made by the Commission that the costs of 2G and 3G are the same and/or that one is necessarily greater than the other for carrying voice traffic, are misplaced. This is an empirical matter that can only be determined by examining various MNOs actual costs. It is quite possible that 3G costs are higher in the short term than 2G but lower in the longer term, and the costs of migrating between technologies in a combined network (for example, necessary spare capacity on both networks dual running) imposes additional costs that must be borne by industry in any efficient migration between technologies.
- 3.16 The lack of consideration of actual costs – particularly 3G costs, and consideration for operating a hybrid 2G/3G network – supports Vodafone's position that the outputs of the WIK model are only useful to the extent that they illustrate a theoretical floor of 2G MTAS rates.
- 3.17 We therefore broadly support the Commission's views in the Draft Pricing Principles *'that the WIK cost model effectively provides a floor price on the cost of supplying the MTAS on a 2G network.'*¹⁴ We also support the Commission's view that this is only one data point to consider in determining the MTAS rate, and most importantly that due to the flaws in the model that it is not an appropriate tool to set MTAS pricing principles in Australia.¹⁵

Efficient costs and appropriate market share benchmark

- 3.18 As noted by the Commission in the Draft Pricing Principles, *'some regard must be had to the actual processes by which operators compete and establish themselves in markets'*¹⁶ and the TSLRIC framework should be applied, *'amongst other considerations.'*¹⁷

¹⁴ ACCC, Draft Pricing Principles, p 15.

¹⁵ ACCC, Draft Pricing Principles, p 15.

¹⁶ ACCC, Draft Pricing Principles, p 11.

¹⁷ ACCC, Draft Pricing Principles, p 12.

- 3.19 Such an approach is consistent with the Tribunal's guidance in *Application by Vodafone Network Pty Ltd & Vodafone Australia Ltd* [2007] ACompT 1 (Vodafone Decision) regarding market shares for efficient entrants in the Australian market. The Tribunal emphasised in its decision that in determining what an 'achievable' market share is for an efficient new entrant, regard needs to be had to market realities such as the way in which the current MNOs operate in the market, the minimum efficient scale for an MNO in the market and the different ways in which an MNO might seek to service a portion rather than the whole of the mobile services market.¹⁸
- 3.20 Vodafone continues to be of the view that a 17% market share is an appropriate benchmark for an efficient entrant in the Australian market for determining indicative prices for MTAS. A 17% market share benchmark would appropriately reflect the realities of the Australian market. There is no reason to assume – in the Australian context of two integrated fixed and mobile operators – that in the long run each MNO will have the same market share.
- 3.21 Setting the market share benchmark too high is likely to result in an under-estimate of the TSLRIC efficient MTAS costs for a new entrant and under-compensate mobile-only operators for their legitimately incurred costs. Vodafone submits that the WIK model's use of 25% and 31% market share scenarios provides further support for the Commission's approach of considering the WIK model outputs as theoretical lower bound estimates only.

4. Further factors for consideration in setting MTAS Prices

International Benchmarking Update

- 4.1 Vodafone welcomes the pragmatic use of benchmark MTAS rates from comparable countries.
- 4.2 In the absence of data recording Australian MNOs' actual costs or a robust cost model using those actual costs, it is appropriate for the Commission to use a number of methods to inform itself about the pricing of MTAS – including international cost benchmarking.
- 4.3 Vodafone agrees with the Commission that it is appropriate to have regard to international benchmarking using cost models estimating the efficient cost of supplying MTAS and actual mobile termination rates in estimating the efficient costs of supplying the MTAS in Australia¹⁹ and we provide further context to recent developments in European MTAS rates and recent Article 7 decisions of the European Commission (EC).

¹⁸ Vodafone Decision at [80] to [83].

¹⁹ ACCC, Draft Pricing Principles, pp 13, 15-6.

- 4.4 First, we note that the Australian MTAS rate is substantially lower than comparable European rates. Vodafone reiterates that this is an illogical outcome given lower population densities and greater geographical scope of Australian mobile networks. We also note that the European Regulators Group (ERG) and its member National Regulatory Agencies (NRAs) have agreed to a continual reduction in MTAS rates over the next three years of 40% (15% p.a.) – to the end of 2011.²⁰ We note that this trend will bring the proposed MTAS rate in Australia in line with the EU average at the end of 2011. European benchmark MTRs supports the continuation of 9cpm for a further three years.
- 4.5 The Commission highlights in the Draft Pricing Principles that the EC is currently undertaking a consultation on a recommendation on fixed and mobile termination rates. Vodafone Group has provided extensive comments on the proposal.²¹ We note that the Commission correctly highlights the extensive criticism the EC has received from Member States and the ERG over its proposal and also that the recommendation has yet to be adopted. In addition, the EC recommendation will not be in effect until 2012 at the earliest, and even then it is subject to individual impact assessment in each Member State. Consequently, Vodafone submits that the EC recommendation is of limited relevance to the determination of MTAS rates in the period 2009-2011.
- 4.6 Even if the Commission is of the view that it is of relevance before 2012, it should be aware of recent EC approvals through the Article 7 process for Italy and Greece. These rates provide an indication of the range of rates applicable in the EU:
- Italy²² (in AUD²³):
 - June 2009: 15c;
 - June 2010: 12.9c;
 - June 2011: 10c;
 - June 2012: 8.8c.
 - Greece²⁴ (in AUD²⁵):
 - January 2009: 15.4c;
 - January 2010: 12.2c;
 - January 2011: 9.7c.
- 4.7 This international benchmarking information regarding estimates of the efficient price of supplying MTAS using cost models and MTAS prices themselves suggests that the efficient costs of supply of the MTAS may be significantly higher than the estimates produced by the WIK model and that an upper bound of around 12cpm for the efficient cost of supplying MTAS in Australia is conservative.

²⁰ http://erg.eu.int/doc/whatsnew/erg_08_32_25th_plen_vilnius_%20press_080603.pdf

²¹ http://ec.europa.eu/information_society/policy/ecomms/doc/library/public_consult/termination_rates/vodafone.pdf

²² <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/708&format=HTML&aged=0&language=EN&guiLanguage=en>

²³ Converted using exchange rate of AUD 1 = € 0.51. Correct as at 11 December 2008.

²⁴ http://circa.europa.eu/Public/irc/infso/ecctf/library?l=/commissionsdecisions/el-2008-0786_enpdf/_EN_1.0_&a=d

²⁵ Converted using exchange rate of AUD 1 = € 0.51. Correct as at 11 December 2008.

Extrapolation of WIK model results requires adjustment for inflation

- 4.8 The WIK cost model estimates the hypothetical cost of MTAS for a single year. The Commission states it has received a further update of the cost model from WIK, reflecting updated population figures from the 2006 ABS Census but not apparently for costs. The WIK cost model, therefore, estimates the cost of MTAS in 2006 terms. As such, any cost estimate for future years (and future demand levels) using the WIK model must be interpreted as the cost of MTAS in real terms for 2006.
- 4.9 Using actual inflation data and the IMF's inflation forecasts²⁶ for Australia in the period from 2006 to 2011, the cost estimates in 2006 terms can be adjusted for equivalent regulated nominal rate in future years.

Nominal MTAS rate and its adjusted real MTAS rate equivalent

	2006	2007	2008	2009	2010	2011
Nominal	9	9	9	9	9	9
Real	9	8.8	8.4	8.1	7.9	7.7

- 4.10 The Draft Pricing Principles nominate an indicative price of 9cpm for a three year period ending on 2011. One of the outcomes of setting a nominal price for this period of time is that accounting for inflation, the price effectively decreases over the 3 year period. The above table shows the nominal MTAS rate in the Draft Pricing Principle and the equivalent real 2006 term for each year. This shows that the Draft Pricing Principles is recommending a decreasing real MTAS rate over time.
- 4.11 Vodafone submits that the Commission must bear this effect in mind when using any cost estimates, including the output of the WIK model, to inform itself as to the amount of an indicative price for MTAS which is in the LTIE.

5. LTIE -The lack of fixed-to-mobile pass-through

- 5.1 Vodafone believes that it is reasonable for the Commission to consider actual market evidence on the extent of FTM pass-through in determining whether the proposed pricing principles for MTAS are in the LTIE. We submit that the Commission can no longer be satisfied that reductions in MTAS prices will have any positive impact on competition in the provision of FTM services. Further MTAS reductions will not promote competition in the fixed line market – in the absence of mandated FTM pass-through – but will instead continue to deliver a windfall to Telstra rather than benefiting consumers.

²⁶ IMF, World Economic Outlook October 2008 Database, code PCPI, base year 2006.

- 5.2 The impact of MTAS rates on competition in the market in which FTM services are provided has previously been identified by the Commission as one of the ways in which competition is promoted as a result of the declaration of MTAS.²⁷ The Commission has long relied on the downward influence that reductions in MTAS rates can have on FTM prices as evidence that reductions in MTAS rates promote the LTIE – by promoting competition in the market in which FTM services are provided²⁸ – which the Tribunal has recognised is not effectively competitive.²⁹
- 5.3 The Commission's expectations that reductions in MTAS prices would be reflected in lower FTM retail prices were clearly set out in its 2007 Pricing Principles Determination³⁰ and the MTAS Final Report 2004.³¹ This has not happened.
- 5.4 Vodafone has always been concerned that there has been very little pass-through of MTAS reductions to FTM consumers and that this has been contrary to the LTIE.³² We agree with the Commission that it is disappointing that *'there has been no significant reduction in FTM prices despite earlier expectations'*³³ – and the significant 57% decrease in the MTAS indicative price since 2004.³⁴ Further decreases to MTAS rates cannot proceed under such circumstances.
- 5.5 Vodafone's analysis of Telstra's latest financial data as of June 2008 (after Telstra recalculated the data to exclude ISDN minutes) supports the Commission's conclusion that (while there are other costs associated with delivering a FTM service), *"...the degree of pass through to FTM retail prices remains lower than could be expected given the reductions in MTAS prices"*.³⁵ Telstra's average FTM price per minute has remained at 35cpm since January 2006.
- 5.6 Additionally, decreasing MTAS rates has not affected the competitive landscape as evidenced by the market shares of Telstra and its principal fixed line competitors – which remain unmoved.

²⁷ ACCC, *Mobile Services Review - Mobile Terminating Access Service 2004* (MTAS Final Report 2004), pvii.

²⁸ ACCC, 2007 Pricing Principles, pp25-26..

²⁹ *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited* [2006], ACompT 8 (Optus Decision) at [88].

³⁰ ACCC, 2007 Pricing Principles, p26.

³¹ ACCC, MTAS Final Report, p222-3.

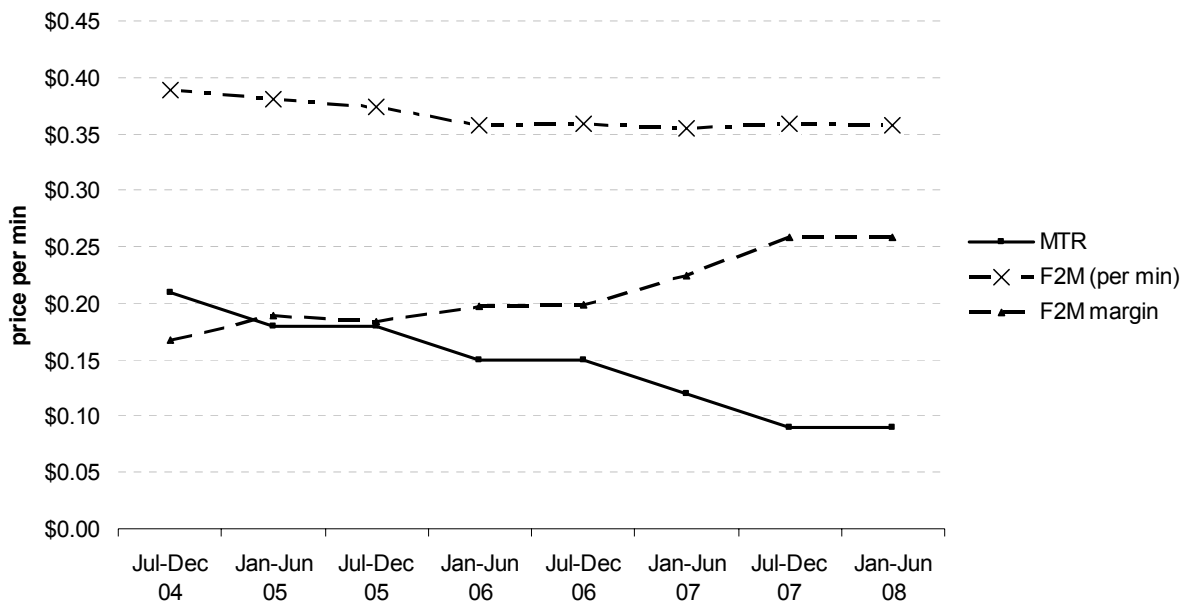
³² Vodafone 2007 Pricing Principles Submission, p20.

³³ ACCC, Draft Pricing Principles, p19.

³⁴ ACCC, Draft Pricing Principles, p18.

³⁵ ACCC, Draft Pricing Principles, p19.

Graph 1: MTR Decreases and the FTM margin



Source: Telstra half year & full year financial reports; Vodafone analysis

5.7 As Graph 1 illustrates, the margin retained³⁶ by Telstra from FTM calls during the period of past pricing principles has been expanding. Since January 2006, the regulated MTAS rate has fallen by 40%, while Telstra's FTM revenue per minute has increased by 0.3 %. Vodafone notes that the Draft Pricing Principles acknowledges that the level of 'pass-through appears to have weakened in recent years ...'.³⁷ This understates the position: Telstra's own audited financial data shows that pass-through has simply not occurred since January 2006.

5.8 Telstra's fixed customers have faced an increase in the price of FTM calls since January 2006 despite MTAS falling by 40%. In such circumstances, the only conclusion available to the Commission is that past MTAS rate decreases have done little if anything to promote the LTIE.

5.9 The impact of the MTAS reductions to date has been to transfer value to Telstra at the expense of mobile only operators. Using reasonable assumptions, and Telstra's audited financial data, we estimate that MTAS regulation has transferred \$715 million from the mobile industry to Telstra³⁸ since July 2004. Of this, \$485 million has been transferred between January 2007 and June 2008.

³⁶ Difference between the FTM retail price (as expressed in Telstra's audited financial reports) and the regulated MTAS and fixed origination rates.

³⁷ ACCC, Draft Pricing Principles, p18.

³⁸ This estimate excludes FTM minutes from Telstra to its own mobile subscribers (assuming the probability of calling a mobile network is evenly distributed). We assume that 42% of FTM traffic is made to Telstra mobiles.

- 5.10 The prospect of future pass-through would also appear to be unlikely. Telstra's submission to the Government's Expert Panel for the National Broadband Network (NBN) of 26 November 2008 includes pricing for a basic telephone service to be provided for the life of the NBN Agreement. The Basic Telephone Pricing Plan 2009-2010 sets call prices to Telstra mobiles at 39cpm and calls to other mobiles at 42cpm. This suggests that the trend of increasing FTM prices as illustrated in Graph 1 above is likely to continue in the future. Further, this suggests that this issue is not one of a delay in a full pass-through of reductions in MTAS rates to FTM end-users but a lack of intention by integrated operators (or at least Telstra) to pass-through the full amount of past reductions or any future further reductions.
- 5.11 The lack of pass-through in the recent period and Telstra's lack of future commitment to pass-through calls into question the justification for further MTAS reductions.
- 5.12 Vodafone considers that this evidence regarding FTM pass-through demonstrates that previous significant MTAS price reductions have had little or no positive benefit on competition in the fixed line market,³⁹ and that further reductions are unlikely to have such benefits.
- 5.13 As a result, the Commission cannot be satisfied that any further reductions in MTAS prices would be in the LTIE at this time because there is no credible evidence to suggest that any such reduction would promote competition in the market in which FTM services are provided.

6. LTIE - The waterbed effect

- 6.1 Vodafone welcomes the comments in the Draft Pricing Principles that the existence of a waterbed effect remains unclear.
- 6.2 In the 2007 Pricing Principles Determination, the Commission considered that a waterbed effect was not evident in Australia because it observed lower average retail prices. This view of the waterbed is misplaced. As Vodafone has outlined in previous submissions, the waterbed effect does not imply that retail prices will increase in an absolute sense. Rather, the waterbed refers to the fact that retail prices would be higher than would otherwise be the case due to the need to rebalance a decline in wholesale revenue (arising from a reduction in the MTAS rate) through retail revenue.
- 6.3 The theoretical basis for the waterbed has been extensively discussed in our previous submissions and in previous reviews by other NRAs worldwide.⁴⁰ It is uncontroversial that multi-product firms (with linkages between products) rebalance revenues between products when prices for one product change (either through change in consumer demand and preferences or through regulation).

³⁹ Vodafone, WIK Model Submission, pp-6, and Vodafone, 2007 Pricing Principles Submission, pp19-23.

⁴⁰ See, for example, Ofcom and New Zealand Commerce Commission.

- 6.4 In *Application by Optus Mobile Pty Limited & Optus Networks Pty Limited* [2006], ACompT 8 (Optus Decision) at [82], the Tribunal recognised this interaction between the two sides of mobile telecommunications markets and observed that mobile companies take into account all sources of revenue (including wholesale MTAS revenue) when setting prices for their services:

When competing with each other, mobile service providers take into account all their sources of revenue. It is a feature of the Australian market that providers offer retail customers a bundle of services in which usage charges subsidise charges for handsets and for access to the network (where access means connection and thus the ability to make and receive calls, while usage is the actual making and receipt of calls). Thus some components of the mobile service provided to the customer may be supplied below cost and some components above cost. If Optus' provided DGTAS is supplied at a price which exceeds the efficient costs of supply of that service, it does not necessarily follow that such a price is unreasonable. The interactions between the provision of the SGTAS and of the retail services need to be examined. Such a price may not be unreasonable where the overall charge for all the relevant services does not exceed the efficient cost of supply of those services.

- 6.5 Hausman and Leonard show that the minimum pass-through for a monopolist would be 50%, when faced with a downward sloping demand curve⁴¹. The extent to which firms rebalance prices between specific products is ultimately an empirical question – a question the Commission has so far failed to address.
- 6.6 Vodafone has already supplied the Commission with a rigorous econometric measurement of the waterbed effect (see appendix B). Vodafone has also examined public data from the Merrill Lynch Global Wireless Matrix (Q1, 08) to determine if any anecdotal evidence of a waterbed is present.
- 6.7 The first observation that can be made from the Merrill Lynch data is that the average voice revenue per minute increased in the March 2008 quarter for all mobile operators. This was the first quarter for which the reduction in MTAS to 9cpm could have affected retail prices⁴².

Merrill Lynch Average Voice Revenue per Minute (AUD)

	December 2007 Quarter	March 2008 Quarter
Telstra	0.2064	0.2104
Optus	0.1340	0.1356
Vodafone	0.1708	0.1711
Hutchison	0.2249	0.2261

Source: Merrill Lynch Global Wireless Matrix

⁴¹ Hausman, J. & Leonard, G., 'Efficiencies from the Consumer Viewpoint', *George Mason Law Review*, vol. 7(3), 1999.

⁴² The ACCC issued its pricing principles setting MTAS at 9cpm in December 2007. While the change in MTAS was backdated to July 2007, retail prices cannot be backdated.

- 6.8 The waterbed effect can also be observed through changes in the EBITDA margin. In the absence of a waterbed effect, a decrease in the EBITDA margin would result from decreases in the MTAS rate. A stable or increasing EBITDA margin over the period of declining MTAS rates would support the existence of a waterbed effect. The Merrill Lynch data shows that during the period when MTAS has decreased from 18cpm to 9cpm (December 2005 to March 2008 quarters), Vodafone's EBITDA margin has remained relatively stable.
- 6.9 This suggests that the decline of MTAS rates in recent years (i.e. 12cpm and 9cpm) has not promoted a decline in retail mobile prices. Rather, subscribers have had to face higher retail prices to maintain EBITDA margins to sustain the current level of investment in innovation and infrastructure necessary to provide consumers with constantly evolving services. While this analysis is not firm evidence of the size of the waterbed, the data is clearly consistent with the operation of the waterbed effect.

7. LTIE - The effect of MTAS reductions on low-usage customers

- 7.1 Existing research on the waterbed effect attempts to identify the effect of reductions in the MTAS rate on average price levels. However, decreases in the MTAS rate may not necessarily be reflected in average prices due to widely varying importance of wholesale revenue on different customer types. For example, one could expect that decreases in MTAS might benefit high usage customers whom have high levels of outgoing calls (interconnect cost) compared to incoming calls (interconnect revenue). On the other hand, low-usage customers would likely be adversely affected due to high level of incoming calls (interconnect revenue) compared to outgoing calls (interconnect cost).
- 7.2 The attractiveness of subscribers' to mobile operators is their total average revenue per user (ARPU) – that is, the total recurring revenue that can be generated from each subscriber. ARPU is composed of revenue which is collected directly from the subscriber (billable revenue, or their monthly bill) and revenue which is collected through wholesale charges (termination revenue). Subscribers' willingness to subscribe is affected only by the amount they are charged directly (monthly bill). Wholesale termination revenue, therefore, encourages low-spend customers to join mobile networks by enabling low-bill propositions to be provided. In the absence of wholesale termination revenue, mobile operators would have to recover all subscriber ARPU directly from subscriber monthly bill – and as a result, low-spend subscribers would be less willing to subscribe.
- 7.3 To measure the effects – which have obvious and important social consequences – it is necessary to identify the number of low-spend users (measured by the monthly bill) and the proportion of their ARPU which is derived from incoming voice termination revenue. To show this, we have collected data on each Vodafone subscriber's monthly bill and their monthly ARPU (billable revenue plus incoming revenue). This data is a single month snapshot of Vodafone subscribers' October 2008 monthly bill and ARPU. The results are shown in graph 2 below.

Graph 2: [c-i-c]

7.4 The data shows that the average total ARPU was [c-i-c] for October – [c-i-c] of average revenue came directly from subscribers' monthly bill and [c-i-c] came from incoming terminating revenue. However, there are a significant proportion of low-spend users who rely heavily on incoming revenue for their monthly ARPU. The data shows:

- [c-i-c] of Vodafone's active subscribers faced a monthly bill of zero, with [c-i-c] of their monthly ARPU comprising of incoming revenue.
- [c-i-c] of subscribers faced a monthly bill of less than \$5. The vast majority of these subscribers were prepaid [c-i-c] and [c-i-c] of their monthly ARPU came from incoming revenue.

7.5 Graph 3, below, shows the impact on subscriber ARPU with a decrease in the MTAS rate from 9cpm to 6cpm. This clearly shows that changes in the MTAS rate disproportionately affect low-spend users due to their higher reliance on incoming revenue. A decrease to 6cpm would reduce average ARPU by [c-i-c] but the [c-i-c] of subscribers who face a bill of less than \$5 a month will have their ARPU reduced by [c-i-c]

Graph 3: [c-i-c]

7.6 If MTAS rates were lowered to 6cpm, then retail charges may have to be rebalanced to account for the lost ARPU – the waterbed effect discussed earlier. To rebalance subscribers' monthly bills to recover the lost wholesale revenue, the [c-i-c] subscribers who currently see a monthly bill of less than \$5 a month would face a monthly bill increase of as much as [c-i-c].

7.7 If such a rebalancing of retail charges were to occur it is clear that those subscribers who might be able to least afford a price increase would be the worst affected. Such a scenario indicates that reductions in MTAS may not promote, and may in fact be to the detriment of, the LTIE.

What would happen in the absence of wholesale revenue (US example)

7.8 It is instructive to compare the actual market outcomes in Australia (with wholesale termination revenue) to the United States (a market which recovers the vast majority of revenue directly through subscriber monthly bill).

7.9 Vodafone Group requested Plum Consulting to investigate the terms under which low users can obtain mobile services in the US and his report is attached at Attachment C. Plum Consulting confirms that mobile users in the US generally face minimum monthly expenditure obligations of a kind which are not present in Australia today. For example, users must commit to top up their prepay accounts to the value of USD\$10 each month or face loss of credit or even disconnection. Minimum levels of top up are also higher – often substantially higher than in Australia. Such restrictions serve to force higher levels of ARPU in the US, but also effectively

exclude some users who obtain prepay mobile services in Australia today. This in turn begins to explain the lower levels of adult participation in the US, despite higher GDP per capita, and the relatively lower levels of prepay penetration.

- 7.10 The Australian market serves mobile users with levels of monthly expenditure (below around AUD\$15⁴³) which are simply not supported at all in the United States. Currently, Vodafone Australia has [c-i-c] subscribers who face a monthly bill of less than AUD\$15.
- 7.11 We are not aware of any parties in Australia advocating the immediate adoption of the US-style of termination charging, but it is reasonable to expect that the continual reduction in the MTAS rate would introduce into the Australian market features of the US market. Reductions in MTAS rates will result in the introduction of minimum spend requirements on prepaid propositions – resulting in fewer low-spend users being served by mobile operators.
- 7.12 Given this likely outcome, which clearly is counter to the LTIE, Vodafone Australia agrees with the Commission’s proposal to maintain the MTAS rate at 9cpm until December 2011.

8. LTIE - Total consumer and producer welfare

- 8.1 When assessing the impact that changes in the real MTAS rate have on the LTIE, the Commission must pay regard to the impact on total consumer and producer welfare in all of the markets which are directly affected by the change. To assist the Commission, we produce a cost-benefit analysis of changing the real MTAS rate to 6cpm in Attachment D. These results clearly show that further decreases in the MTAS rate are not consistent with the LTIE.
- 8.2 The cost-benefit analysis assesses the impact on consumer, producer and total welfare over the three years of the Draft Pricing Principles with real MTAS rates of 9cpm (factual scenario) and compares this to the counter-factual future state with real MTAS rates of 6cpm. The difference is the welfare effect of moving to a world with real MTAS rates of 6cpm.
- 8.3 The factual scenario market average usage and prices is sourced from Telstra’s annual financial reports and the Merrill Lynch Global Wireless Matrix forecasts.⁴⁴ The base year for the analysis is 2008, utilising the latest financial data from Telstra for 2007/08 and the wireless data for calendar year 2008 from Merrill Lynch.
- 8.4 The counter-factual future state has a real MTAS rate of 6cpm in calendar years 2009, 2010 and 2011. The counter-factual future prices and demand are derived using the following assumptions:
- Pass-through: 0.25
 - Price elasticity of FTM demand: -0.3
 - Price elasticity of mobile demand: -0.5

⁴³ Assumes an exchange rate of 1 AUD = 0.66 USD. Correct as at 11 December 2008.

⁴⁴ As at Qtr 1 2008. Note that this does not take into account the effect of the current economic climate on the forecasts.

- Mobile waterbed: 50 %

8.5 The above assumptions represent conservative and reasonable assumptions reflecting actual Australian market evidence. The level of pass-through actually over-states the level seen in recent years (see Section 5). The level of waterbed is the minimum level associated with a monopoly provider. This also under-estimates the level of waterbed observed by Genakos and Valletti.⁴⁵ The elasticities assumed are consistent with previous cost-benefit analyses conducted by Ofcom and the European Commission.

8.6 The welfare effects in the FTM and mobile markets are shown below. The first issue to highlight is that the wholesale welfare effects across the markets cancel out – it is merely a transfer. However, there are distributional issues to consider, as it is clear that stand-alone mobile operators lose, while FTM providers gain. The implications of windfall gains in the wholesale market to FTM providers are discussed in more detail above and in previous Vodafone Australia submissions.⁴⁶ The focus of the welfare analysis is therefore on the retail markets – the effect of which is determined by the level of FTM pass-through and the level of the waterbed effect.

Welfare effects

	2009	2010	2011
Retail FTM market			
Consumer welfare (AUD mill)	35.0	35.2	35.4
Producer welfare (AUD mill)	-24.6	-24.8	-24.9
Total welfare (AUD mill)	10.3	10.4	10.5
Retail mobile market			
Consumer welfare (AUD mill)	-68.2	-68.6	-69.0
Producer welfare (AUD mill)	45.5	45.7	46.0
Total welfare (AUD mill)	-22.7	-22.9	-23.0
Wholesale FTM market			
Producer welfare (AUD mill)	90.9	91.5	92.0
Wholesale mobile market			
Producer welfare (AUD mill)	-90.9	-91.5	-92.0

⁴⁵ Christos Genakos and Tommaso Valletti, *Testing the 'Waterbed' Effect in Mobile Telephony*, June 2007 (Genakos and Valletti Report)

⁴⁶ See Attachments A and B.

- 8.7 The total welfare effect in the retail FTM market is \$10.3 million in 2009, \$10.4 million in 2010, and \$10.5 million in 2011: of which around \$35 million is gained in consumer welfare each year. While FTM producers receive a wholesale windfall of \$90-92 million each year, this is off-set by a decline in their producer welfare in the retail FTM market of around \$24 million per year.
- 8.8 A reduction in the MTAS rate from 9cpm to 6cpm results in a reduction of total welfare in the mobile market of \$22.7 million in 2009, \$22.9 million in 2010, and \$23 million in 2011. Mobile consumers are worse off to the extent of \$68-69 million per year. Mobile producers suffer an initial loss of \$91-92 per year in the wholesale market, but off-set this through rebalancing retail prices, which recovers around \$46 million per year.
- 8.9 While it is interesting to highlight which consumers and producers will win or lose from changes in the regulated MTR, the Commission must have regard to the LTIE (as well as the legitimate business interests of operators). As such it must focus on the total effect on all relevant telecommunications markets. The Commission is unable to pay regard only to the beneficial effect on the FTM market, while ignoring the detriment imposed on the mobile market.
- 8.10 The total welfare effects for both the FTM and mobile markets are shown below. A reduction in the real MTAS rate from 9cpm to 6cpm reduces consumer welfare by \$100.3 million over the three years 2009 to 2011. Producer surplus increases by \$62.9 million over the three years (due mainly to the waterbed effect). In total, if the Commission reduces the real MTAS rate to 6cpm, total Australian welfare will be reduced by \$37.4 million over three years.

Total welfare effects (FTM & mobile markets)

	2009	2010	2011
Consumer welfare (AUD mill)	-33.2	-33.4	-33.6
Producer welfare (AUD mill)	20.8	21.0	21.1
Total welfare (AUD mill)	-12.4	-12.5	-12.5

- 8.11 It is clear that under conservative and reasonable assumptions, further reductions in the real MTAS rate causes a loss in consumer welfare and total welfare. A decrease in the real MTAS rate over the period 2009-2011, is therefore, not in the LTIE.

9. LTIE and the Duration of the Pricing Principles

- 9.1 Vodafone supports the Commission setting a pricing principle for MTAS at 9cpm for the period from 1 January 2009 to 31 December 2011.

- 9.2 Both access providers and access seekers have legitimate interests in certainty regarding access prices for a reasonable period of time, so they can be incorporated into their respective business' forecasting, strategic planning and business models. The pricing principles allow MNOs to enter into longer term agreements with third parties for the supply of MTAS in the knowledge that the indicative price will apply for the term of the agreement. Any period of time less than the 3 year timeframe proposed in the Draft Pricing Principles would subject businesses to a significantly higher risk profile in terms of potential costs and revenues. Such uncertainty regarding the future profitability of mobile services will have an impact on MNOs' decision-making regarding additional investment in infrastructure and may stifle efficient investment.
- 9.3 Continued investment in increasingly advanced mobile networks is vital for promoting competition in the provision of telecommunications services in Australia providing consumers with a greater range and quality of services. Vodafone believes that in the short to medium term, mobile services will be the only credible infrastructure-based competition to the Government's National Broadband Network. Improved mobile service bandwidth and functionality will mean that mobile services are more comparable with the capabilities of fixed line services and able to offer consumers an alternative to some traditional FTM services. In the medium term, Long Term Evolution (LTE) will enable seamless IP based integration between mobile networks and the NBN. Therefore ongoing investment in mobile networks, and the ability to continue to develop innovative and attractive commercial propositions for customers, is essential to the sustainability and ongoing competitive landscape in the Australian communications market and in the LTIE.
- 9.4 Further, in light of the current and ongoing investment being made by MNO's in 3G infrastructure and the uncertain economic outlook, the need for business certainty regarding ongoing MTAS prices is significant. The magnitude and cost of investments in mobile networks mean that investment decisions generally require long lead times and a high degree of confidence regarding regulatory outcomes. In order to plan and appropriately assess mobile network investment and broader business investment, we require a level of certainty over MTAS pricing for a reasonable period of time. In the absence of regulatory confidence for Australian investment opportunities, funds available for investment within Australia may be diverted to alternative markets with a consequent loss of opportunity to promote competition in the provision of telecommunications services in Australia.
- 9.5 Vodafone submits that in circumstances where:
- (a) there remains uncertainty about the actual costs of MTAS;
 - (b) there is considerable doubt that any further reduction in MTAS prices would be in the LTIE; and
 - (c) the ongoing investment by MNOs in 3G infrastructure,
- it is appropriate that the pricing principles apply for a period of 3 years. As such the proposed duration of the Draft Pricing Principles is consistent with the LTIE.

- 9.6 As the Commission notes, the current MTAS declaration has a notional expiry date of 30 June 2009, whereas the Draft Pricing Principles are expressed to operate from 1 January 2009 to 31 December 2011. Vodafone supports the Commission's reasons for setting pricing principles beyond the notional expiry date, in particular, the fact that it will be required to conduct a declaration inquiry in respect of MTAS, the outcome of which could potentially be the extension of the existing declaration. In such circumstances the pricing principles determination would simply continue to apply for the relevant period.
- 9.7 The Commission's approach in setting pricing principles beyond the notional expiry date of the declaration is consistent with the fact that pricing principles issued under section 152AQA of the Act are not required to include an expiry date. Theoretically the Commission could determine pricing principles to apply indefinitely - if the declaration were to expire or to be revoked the pricing principles would then simply cease to be effective, other than in respect of any access dispute already validly notified to the ACCC.⁴⁷
- 9.8 Further, the application of the pricing principles beyond the notional expiry date of the declaration is sensible in the context of MTAS because there is little or no real possibility that MTAS will not remain a declared service beyond 30 June 2009. Therefore, Vodafone anticipates that the required declaration inquiry in 2009 will be relatively uncontroversial and will result in the existing declaration being extended for a further 5 years.
- 9.9 Vodafone notes that the Commission has indicated that if it were to re-declare MTAS (as opposed to extending the current declaration) it would be required to make new pricing principles under section 152AQA(3) of the Act.

⁴⁷ This view is supported by the decision of Lindgren J in *Telstra Corporation Ltd v Australian Competition & Consumer Commission* [2008] FCA 1436, which considered the similar and related question of whether a final determination was invalid because the determination was expressed to have effect beyond the notional expiry date of the relevant service.

**A. Vodafone submission on the WIK Mobile Network and Cost
Model and MTAS Pricing Principles Determination 1 July 2007 to
30 June 2009, March 2007**

**B. Vodafone submission on MTAS Pricing Principles Determination
1 July to 31 December 2008, August 2007**

C. Pricing in the United States (Plum Consulting)

D. Welfare Analysis of further reduction in mobile termination rates in the Australian market

- D.1. A welfare analysis of the proposal (the factual) compared to an alternative state of the world (counter-factual) is one element in assessing whether the proposed pricing principles meets the long-term interest of end-users (LTIE) test.
- D.2. The Draft Pricing Principles proposes to maintain the real MTAS rate at 9cpm until December 2011. This appendix outlines Vodafone's welfare analysis comparing the recommended approach and the counter factual of reducing the real MTAS rate to 6cpm from January 2009 to December 2011.
- D.3. Altering the MTAS rate impacts on the wholesale side and retail side of the mobile and fixed-to-mobile markets. The welfare analysis estimates the impact in each of these markets for the wholesale and retail side.
- D.4. Assessing total welfare in the Australian context requires consideration to be given to the level of integration between firms. That is, the fact that Telstra self-supplies its retail mobile and fixed businesses with mobile termination services. This is an intra-company transfer, and as such, has no impact on economic welfare. Optus, to a lesser degree, also self-supplies mobile termination services.

Estimating the factual future state

- D.5. The first step in the welfare analysis is to define the factual and counter-factual future states of the relevant markets and sub-markets. The factual future state follows the draft pricing principle, maintaining MTRs at 9cpm until end of calendar year 2011. The future market average demand and price is sourced from Telstra's annual financial reports and the Merrill Lynch Global Wireless Matrix forecasts.⁴⁸

⁴⁸ As at Qtr 1 2008. Note that this does not take into account the effect of the current economic recession on the forecasts.

Factual scenario

	2008	2009	2010	2011
FTM volume (mill)	4,622 ⁴⁹	4,649	4,676	4,703
FTM Revenue (mill)	1,656 ⁵⁰	1,627	1,599	1,571
FTM revenue per minute (AUD)	0.358 ⁵¹	0.350	0.342	0.334
Mobile revenue per minute ⁵²	0.183	0.175	0.166	0.159
MoU per subscriber ⁵³	201.3	204.4	207.6	210.8
Subscribers (mill) ⁵⁴	22.78	23.36	23.88	24.41

D.6. The base year for the analysis is 2008, utilising the latest financial data from Telstra for 2007/08 and the wireless data for calendar year 2008 from Merrill Lynch. The forecasted FTM volume and revenue is estimated to grow at Telstra's Compound Annual Growth Rate (CAGR) from January 2005 to June 2008.⁵⁵ The FTM revenue per minute is calculated from these estimates.⁵⁶

D.7. The Merrill Lynch mobile revenue and MoU per subscriber forecasts are the total revenue and MoU (outgoing plus incoming). For the welfare analysis these have to be adjusted to estimate the outgoing MoU and the outgoing revenue per minute. The adjustments are outlined below.

Factual scenario (adjusted mobile data)

	2008	2009	2010	2011
Total revenue per sub per month ⁵⁷	36.80	35.84	34.55	33.48
Incoming revenue per sub per month ⁵⁸	6.47	6.57	6.67	6.77
Outgoing revenue per sub per month	30.33	29.28	27.88	26.70
Outgoing MoU per sub per month ⁵⁹	129	131	133	136
Outgoing revenue per minute	0.234	0.223	0.209	0.197
Total outgoing revenue per year (mill)		8,208	7,990	7,821

⁴⁹ Source: Telstra, Half-Year Annual Report 31 December 2007, p.54, and 2007-08 Full Year Results and Operations Review, June 2008, pp.17-8. The Telstra numbers are adjusted to reflect total FTM market demand, using the Telstra market share of FTM minutes (74% – see ACCC Market Indicator Report 2005-06).

⁵⁰ Industry FTM revenue is calculated using the industry FTM volume and the Telstra FTM revenue per minute.

⁵¹ Source: Telstra, Half-Year Annual Report 31 December 2007, p.54, and 2007-08 Full Year Results and Operations Review, June 2008, pp.17-8.

⁵² Merrill Lynch, Global Wireless Matrix, Q108.

⁵³ Ibid.

⁵⁴ Ibid., n.5.

⁵⁵ FTM volume CAGR = 0.58%. FTM revenue CAGR = -1.74%.

⁵⁶ FTM revenue / FTM volume.

⁵⁷ = Mobile revenue per minute * MoU per subscriber.

⁵⁸ = MTR * MoU per subscriber * % of MoU which is incoming (35.7%). Percentage of incoming traffic is sourced from WIK, 2007 Cost Model for Australia, p.107.

⁵⁹ (1 – % of MoU which is incoming) * MoU per subscriber.

Estimating the counter-factual future state

D.8. The counter-factual future state is assumed to be one with an MTR of 6cpm in calendar years 2009, 2010 and 2011. The counter-factual future state is derived using the following assumptions:

- Pass-through: 0.25
- Price elasticity of FTM demand: -0.3
- Price elasticity of mobile demand: -0.5
- Mobile waterbed: 50 %

D.9. Using these assumptions, the following usage, revenue and price figures for the FTM and mobile markets are calculated.

Counter-factual scenario⁶⁰

	2009	2010	2011
FTM market			
FTM volume ⁶¹ (mill)	4,679	4,707	4,735
FTM Revenue (mill)	1,603	1,574	1,546
FTM revenue per minute ⁶² (AUD)	0.343	0.335	0.327
Mobile market			
Total incoming minutes (annual)	4,679	4,707	4,735
Total non-integrated incoming minutes	3,089	3,109	3,129
Loss in revenue (AUD mill)	93	93	94
Outgoing revenue rebalance (AUD mill)	46	47	47
Overall price increase	0.6%	0.6%	0.6%
Reduction in call volumes	-0.3%	-0.3%	-0.3%
New outgoing revenue per minutes (AUD)	0.225	0.211	0.199

D.10. Under the counter-factual assumptions, the FTM price falls by 0.7 cents in 2009, 2010 and 2011. This corresponds to an increase in FTM volumes of 30 million minutes in 2009, 31 million in 2010, and 32 million in 2011.

D.11. This model examines the industry-wide effects, and as such, mobile-to-mobile traffic cancels out. That is, at the industry level outbound mobile-to-mobile traffic equals incoming mobile-to-mobile traffic. The relevant incoming minutes for the analysis equal FTM minutes. To estimate the relevant inter-company revenue loss due to the decrease in the MTR, the total market incoming minutes has been adjusted to exclude the minutes which are supplied between the fixed and mobile arms of the horizontally-integrated operators (Telstra and Optus).⁶³

⁶⁰ Pass-through = 0.25, FTM price elasticity = -0.3, Mobile price elasticity = -0.5, mobile waterbed = 0.5.

⁶¹ = $(1 + (\% \text{ change in FTM price} * \text{FTM price elasticity})) * \text{factual FTM volume}$.

⁶² = $\text{factual FTM price} - (\text{change in MTR} * \text{pass through } \%)$.

⁶³ Total market incoming minutes are reduced by the number of FTM minutes from Telstra FTM subscribers to Telstra mobile subscribers. It is assumed the volumes reflect Telstra's market share of FTM minutes (74%) and its market share of mobile subscribers (41%). Similarly, Optus' adjustment reflects its market share of FTM minutes (16%) and its share of mobile subscribers (31%). This assumes that the probability of an FTM minute being made to the same network's mobile subscriber is evenly distributed. This may underestimate the number of "on-net" FTM calls in reality. This will be noticeable in the presence of FTM propositions which offer free or discounted "on-net" calls between fixed and mobiles on the same network.

- D.12. The decrease in the MTR will reduce external wholesale revenue of the mobile industry by \$93 million in 2009, \$93 million in 2010, and \$94 million in 2011. This loss in revenue will need to be recovered from other services provided by the industry. In this model we assume that a proportion of this loss will be recovered from the average billable revenue per subscriber. Note that this combines voice, messaging, data and subscription revenues (including reduction or removal of acquisition and retention subsidies). No claim is made as to how the revenue will be rebalanced across this suite of retail services or across different customer segments – only that the aggregate average billable revenue per subscriber will have to increase. The cost-benefit analysis does not capture any distributional, equitable or social effects of targeting specific subscriber segments. Nor does it capture the network effect of a reduction in subscribers due to increased retail prices (voice, SMS, data or subscription).
- D.13. We assume a waterbed effect of 50 % – ie., half of the wholesale revenue reduction will be recovered through other services, with the mobile industry incurring the cost of the other half. We further note that this is the theoretical minimum that will be passed through when the mobile industry faces a downward sloping demand curve⁶⁴. It is also less than the observed waterbed effect.⁶⁵ Rebalancing increases outbound revenue by 0.6 % in 2009, 2010 and 2011. The increase in prices causes a corresponding decrease in usage – 0.3 % in 2009, 2010 and 2011. As a result, outgoing revenue per minute increases by 0.2c in 2009, 2010 and 2011.

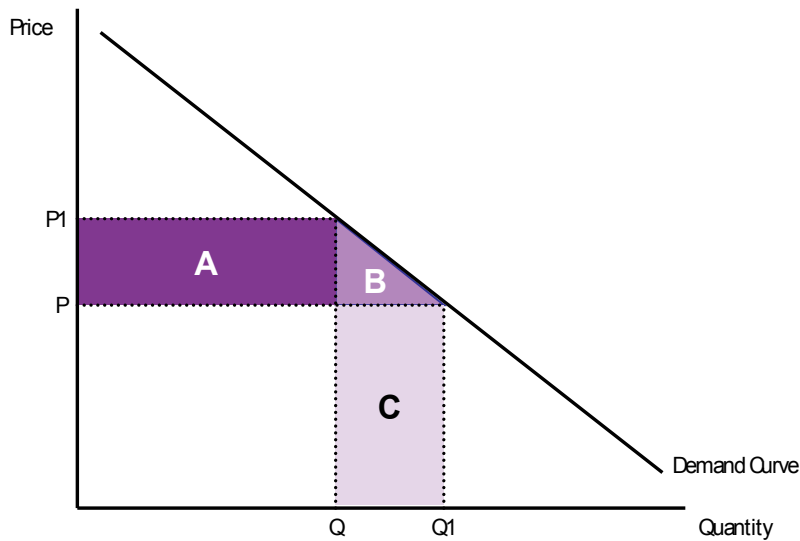
Calculating the welfare effects

- D.14. The welfare effects of the price and demand changes between the factual and the counterfactual future states are derived using orthodox economic techniques.

⁶⁴ Hausman, J. & Leonard, G., 'Efficiencies from the Consumer Viewpoint', *George Mason Law Review*, vol. 7(3), 1999.

⁶⁵ Genakos, C. & Valletti, T., 'Testing the waterbed effect in mobile telephony', in *The Economics of Mobile Prices*, Vodafone Public Policy Series, No.7, November 2007. Revenue rebalancing has recently been observed in the UK mobile market, where the main operators recently increased their outgoing prices in response to EU roaming regulation and continual decline of MTR. See <http://www.guardian.co.uk/business/2008/aug/18/vodafonegroup.telecoms>

Welfare effects of price and quantity changes



D.15. The welfare effects of a price increase (P to P1) are as follows:

- Producer welfare = $A - C$
- Consumer welfare = $-(A + B)$
- Total welfare = $-(B + C)$

D.16. The welfare effects of a price decrease (P1 to P) are as follows:

- Producer welfare = $C - A$
- Consumer welfare = $A + B$
- Total welfare = $B + C$

D.17. The welfare effects in the FTM and mobile markets are shown below. The first issue to highlight is that the wholesale welfare effects cancel out – it is merely a transfer between from the competitive mobile industry to the less-competitive fixed-line industry. The implications of windfall gains in the wholesale market to FTM providers is discussed in more detail in previous Vodafone Australia submissions.⁶⁶ The focus of the welfare analysis is therefore on the retail markets – which are determined by the level of FTM pass-through and the level of the waterbed effect.

⁶⁶ Attachments A and B.

Welfare effects

	2009	2010	2011
Retail FTM market			
Consumer welfare (AUD mill)	35.0	35.2	35.4
Producer welfare (AUD mill)	-24.6	-24.8	-24.9
Total welfare (AUD mill)	10.3	10.4	10.5
Retail mobile market			
Consumer welfare (AUD mill)	-68.2	-68.6	-69.0
Producer welfare (AUD mill)	45.5	45.7	46.0
Total welfare (AUD mill)	-22.7	-22.9	-23.0
Wholesale FTM market			
Producer welfare (AUD mill)	90.9	91.5	92.0
Wholesale mobile market			
Producer welfare (AUD mill)	-90.9	-91.5	-92.0

- D.18. The total welfare effect in the retail sub-market is \$10.3 million in 2009, \$10.4 million in 2010, and \$10.5 million in 2011: of which around \$35 million is gained in consumer welfare each year. While FTM producers receive a wholesale windfall of \$90-92 million each year, this is off-set by a decline in their producer welfare in the retail market of around \$24 million per year.
- D.19. A reduction in the MTAS rate from 9cpm to 6cpm results in a reduction of total welfare in the mobile market of \$22.7 million in 2009, \$22.9 million in 2010, and \$23 million in 2011. Mobile consumers are worse off to the extent of \$68-69 million per year. Mobile producers suffer an initial loss of \$91-92 per year in the wholesale market, but off-set this through increases in retail prices, which recovers around \$46 million per year.
- D.20. While it is interesting to highlight which category of consumers and producers will win or lose from changes in the regulated MTR, the Commission must have regard to the long-term interest of end-users (including the legitimate business interests of operators), and as such it needs to focus on the total effect on all telecommunications markets. The Commission is unable to pay regard only to the beneficial effect on the FTM market, while ignoring the detriment imposed on the mobile market.

D.21. The total welfare effect for both the FTM and mobile markets is shown below. Reduction in the real MTAS rate from 9cpm to 6cpm reduces consumer welfare by \$100.3 million over the three years 2009 to 2011. Producer surplus increases by \$62.9 million over the three years. In total, if the Commission reduces the real MTAS rate to 6cpm, total Australian welfare will be reduced by a total of \$37.4 million over three years.

Total welfare effects (FTM & mobile markets)

	2009	2010	2011
Consumer welfare (AUD mill)	-33.2	-33.4	-33.6
Producer welfare (AUD mill)	20.8	21.0	21.1
Total welfare (AUD mill)	-12.4	-12.5	-12.5