

**VODAFONE NEW ZEALAND LIMITED SUBMISSION TO
THE COMMERCE COMMISSION**



**Telecommunication Act 2001: Schedule 3 Investigation into
Regulation of Mobile Termination Access Services**

28 July 2009

[PUBLIC VERSION]

CONFIDENTIALITY

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Executive Summary

1. Vodafone welcomes the opportunity to provide a submission to the Commerce Commission's Draft Report on Mobile Termination Access Services (MTAS). This is an important stage in this investigation since it is the first time Vodafone and other interested parties have had an opportunity to contribute on the issues with the benefit of the Commission's own analysis.
2. The touchstone of the Commission's foray into the mobile market since 2004 has been its claim that mobile retail pricing is high and further competition is required to reduce prices. This is mentioned in its report where, despite the clear evidence, it continues to claim high prices for New Zealand¹.
3. Since 2004, New Zealand's ranking in the only reliable benchmarking study² has improved from the expensive bottom of the pile to the cheapest half. During that time, Vodafone's pricing has plummeted:

Revenue per unit (y/e March 2005 – March 2009)	Average Annual change	Total 4 year change
Voice origination (per min)	-18%	-55%
SMS origination (per SMS)	-29%	-75%

4. During that same period, consumers have experienced quite different changes in other costs:

(Q1 2005 – Q1 2009)	Average Annual change	Total 4 year change
CPI ³	+3.0%	+12.8%
CPI Food ⁴	+4.9%	+21.0%

5. By comparison, if food had decreased in price to the same extent mobile voice has over the same period your \$100 basket of groceries today would actually cost you only \$37.19.
6. And if food prices had tracked SMS prices you would only be paying \$20.66.

¹ Para x, Draft Report

² Teligen analysis performed quarterly on behalf of the OECD

³ <http://www.rbnz.govt.nz/statistics/0135595.html>

⁴ <http://www.stats.govt.nz/infoshare/SelectVariables.aspx?pxID=1b881614-e46e-467f-932c-5eb4c9123a>

Draft Report

7. The Commission's Draft Report is supported by three key pieces of work:
 - **A cost estimate based on benchmarking against overseas countries**- where it attempts to establish an estimate of the actual cost of providing mobile termination services in New Zealand. This estimate is crucially important since the Commission believes the price of mobile termination should be set at these levels under regulation (the "factual"). It is against this regulated price that the Commission compares the unregulated alternative (the "counterfactual"). The bigger the gap between the two, the greater the case for regulation is likely to be;
 - **Cost benefit modelling analysis (CBA)** – where, through a cost benefit model and in accordance with the purpose of the Telecommunications Act, it attempts to compare the long term impact on consumers of the two scenarios – the factual and the counterfactual. If the benefits under the factual materially exceed the benefits under the counterfactual then the case for regulation is more likely to be established; and
 - **Other analysis** – within which it takes the results of the cost benefit analysis and other analytical elements to build the case in support of its recommendation to the Minister.
8. This submission argues that the Commission's benchmarking is inaccurate and unreliable and leads to an estimate of cost which is nearly half of the rate which should be used.
9. Despite the Commission considering regulation of three potential services (fixed-to-mobile (FTM); mobile-to-mobile (MTM) and SMS termination), it has strangely decided to only construct a cost benefit model to consider the impacts of regulating just one of these services (FTM termination). This is a critical oversight, as we believe a careful analysis of MTM and SMS termination shows that regulation will generate little (if any) net benefits for consumers.
10. Despite having done no cost-benefit modelling for MTM and SMS termination, the Commission still proceeds to provide unconvincing arguments to support its case for regulating mobile to mobile (MTM) voice and SMS termination services.
11. This is especially concerning for SMS termination which is regulated in only one country in Europe (France). There, the French regulator set prices at €3 - €3.5cpt (NZ6.5 – NZ7.6cpt) for SMS termination in contrast with the Commission's proposed regulatory price of 0.95cpt. Bizarrely, this number is taken straight from a cost estimate from Israel – hardly a country that is likely to have similar costs to New Zealand!

12. Based on work done by the economic consulting firm Covec, it is clear that the Commission's cost benefit modelling analysis for FTM termination is fraught with a number of fundamental errors – all of which over play the case for regulation. Further, the Commission populates its cost benefit model with a number of heroic assumptions against those very inputs to which the case for regulation is most sensitive, particularly on fixed to mobile (FTM) pass through.

International cost benchmarking leads to a rate of 14.3cpm

13. Over a series of regulatory investigations, the Commission has changed its mind on how to figure out the cost of mobile termination:
- in the first investigation in 2004 - 05 and the reconsideration investigation, the Commission selected a cost which was slightly higher than the 75th percentile of the prices set by regulators in a range of benchmarked countries;
 - by 2008, it was estimating costs by benchmarking against the median (or middle) of prices set by regulators overseas; and
 - now, in early 2009, it has radically shifted its benchmarking approach again to pick the median of the raw modelled cost estimates from just nine overseas countries that have developed bottom up cost models.
14. Over the course of these changes, the Commission has dropped its estimate of cost in New Zealand from 17cpm in 2005 to 7.16cpm in March of this year.
15. Effectively, the Commission is claiming that since June 2005 the costs of operating a mobile network in New Zealand have come down on average by 17.8 per cent every year. This decline has simply not taken place. In fact, during this period Vodafone has invested in the order of \$500m in its complementary 3G network and total industry voice revenues have remained virtually static.
16. The reality is that overseas cost estimates and prices for mobile termination have not come down by these kinds of levels each year. Rather, the Commission has simply changed its methodology from one investigation into this matter to the next.
17. If the Commission had been consistent in its approach over the years, the benchmark cost would be 14.3cpm – a price greater than what will be the prevailing rates in the MTR Deeds in early 2011 when any regulated rates would become effective.
18. Vodafone asked the world's leading mobile cost modelling firm to examine the Commission's methodology. Analysys Mason has worked at the forefront of the application of cost models

to mobile termination for a decade and is the trusted adviser and cost modeller to seven out of the nine regulators whose very work is benchmarked by the Commission.⁵ Analysys Mason's report is annexed to this submission. It is highly critical of the Commission's benchmarking analysis on many points, including the very approach the Commission is taking in its broadest terms and concludes :

"The Commission's benchmark analysis of MTAS costs is simplistic and produces a result that risks being inaccurate."

"... we believe the approach taken by the Commission to estimate the MTAS cost for New Zealand is flawed."

"[the Commission] should implement a gradual reduction of MTRs over time, in order to avoid any sudden distortional effects on the market, ultimately to the detriment of both operators and consumers."

19. Further it believes that if the Commission does not adjust models from overseas to take account of factors more relevant for local New Zealand conditions, then the Commission should benchmark its estimates:

Using more prudent approaches, such as the 'top of the range' or the '75th percentile

20. The reason for picking the 75th percentile is clear – a regulator cannot risk setting prices below cost. Models are just that – models. They are theoretical and not always accurate. The direction prices are going is as important as the target rate.
21. The Commission is clearly using the outputs of models from overseas in ways that the firm that constructed almost all of them is advising it shouldn't.

Cost benefit analysis requires attention

22. The Commission's CBA only covers fixed to mobile (FTM) termination. It makes no attempt to quantify the consumer benefits of regulating mobile to mobile (MTM) voice or SMS services. It rightly concludes that if the FTM termination service is regulated, FTM calling prices will reduce and mobile calling prices will increase (or not decline as fast). Its analysis also shows there will be a massive wealth transfer from Vodafone to Telecom and other fixed operators.

⁵ Of the nine models benchmarked by the Commission, Analysys Mason developed those in use in France, Denmark, Israel, the Netherlands, Norway, Sweden and the UK.

23. Vodafone asked Auckland-based Covec to review the model and provide its opinion on its validity. Its report is annexed to this submission. Covec has identified several fundamental errors in the model, all of which have had the effect of skewing the Commission's analysis in favour of regulation. Once these errors in the model are corrected, there is little or no case for regulation.
24. The model is highly sensitive to some key assumptions amongst which FTM pass through dominates. This is not surprising since it is this assumption that allocates the massive transfer of value between fixed operators and their customers. For regulation to be justified, the benefits accruing to fixed customers have to materially exceed the detriments to mobile customers. So the higher the pass through of savings to fixed customers the "better".
25. The Commission has repeated its hopeful assumptions from the last investigation about the levels of pass-through that can be expected under regulation. This is despite clear evidence from Australia and elsewhere that undermines its case. Pass through is assumed to immediately start at 85% under regulation and then increase to 100% over a glide path, yet the Commission provides no evidence to support this change. International evidence suggests pass through rates of 25% in Australia, 50% in Europe and at most 64% in the UK. Reducing the Commission's model to 64% pass through removes all value gained through the proposed regulation. Today, of course, New Zealand boasts 100% pass through in the form of the legally binding Deeds of Undertaking. These will no longer be binding if the Commission is given the power to regulate FTM termination.
26. The Commission must correct the errors in the model and reissue it with more balanced assumptions prior to interested parties cross submitting on MTAS.

The case for regulation has not been made

27. In its analysis, the Commission constantly repeats the mantra that "cost-based regulation of the MTAS will remove a significant barrier to entry and expansion in the retail mobile services market"⁶.
28. The Commission has relied upon submissions from 2degrees to support the view that MTM traffic flows between unequal sized networks will be unequal and in favour of the larger network – all other factors being equal.
29. There is no evidence for this view. Call flows will be roughly equal and if they are not in balance then the explanation is the differing customer mixes of the two networks rather than

⁶ Para xlvi Draft Report

their size. This fundamental point is explained in more detail in the body of this submission. But if the Commission accepts the evidence in support of Vodafone's view then the "new entrant" argument falls away and the case for regulation of MTM voice and SMS is extinguished.

30. With lower mobile termination rates, operators will find low spending customers less attractive and some may not be attractive at all. This is because a significant portion of their "value" to an operator is in the incoming calls they receive and therefore the incoming revenue they generate.
31. In the United States where termination rates are particularly low, operators deter low spending customers from joining their network by adopting minimum monthly spend limits. For example, AT&T requires US\$25 (NZ\$38.06⁷) top ups to be used within 30 days or the residual amounts are lost.
32. This level of monthly commitment in New Zealand would exclude most of the country's prepay customers who, on average, spend far less and the social benefits of mobile telephony would be lost to them. In effect we would be taking the mobile service away from the country's low income households and those with relatively low monthly spend could be excluded from the market. The impact of such a change should be modelled by the Commission as part of its analysis.
33. In the United States penetration is significantly lower than in countries such as New Zealand where the termination rates are higher. If penetration in New Zealand reduced to levels commensurate with the United States, several hundred thousand mobile phone users would be deprived of the mobile services they rightly enjoy today.
34. A larger network does have some advantages over a new entrant, of course. The question is, are these advantages fatal "barriers" to a new entrant or merely "hurdles" which properly incentivise the network to grow to achieve similar scale?
35. The Commission has no role in removing simple hurdles to new entrants and has not established that the counterfactual termination rates pose a fatal barrier to entrants. If it were, it would be difficult to explain why 2degrees has invested \$250m in its operation and announced it will launch next month. Surely, it cannot have relied on the termination rate "barriers" being removed to meet its business case?

⁷ At 10 year exchange rate of 1.5225

36. Vodafone suggests that 2degrees' case is quite simple. It wishes to "level the playing field"⁸ which is another way of saying it wishes to access Vodafone's and Telecom's economies of scale on day one without going through its own growth pains.
37. Furthermore, if private equity investors wish to reach their exit point earlier and achieve a higher return than would otherwise be the case one can't blame them for trying. But it is absolutely not the role of the Commission to enhance the financial returns of Trilogy Partners or CVP at the cost of existing mobile operators and their mobile customers.

Vodafone opens up 2degrees deal for all new entrants

38. If new entry is the real reason behind needing regulated termination rates then the Commission should devote its attention to an analysis of the interconnect arrangement between 2degrees and Vodafone which it virtually ignores in its Draft Report. This deal was put together with "encouragement" from the then Minister of Communications and with the full knowledge of the Commission.
39. In the body of this submission we explain why 2degrees will be better off with this "secret deal" than with regulation.
40. The Commission has previously expressed concerns that the interconnect agreement between 2degrees and Vodafone is not available to all access seekers.
41. In order to address this concern, Vodafone will make the 2degrees deal available to any new entrant on the same pricing and terms. We would like to be able to announce what these terms are but are prevented from doing so by 2degrees which has denied all our requests to make public what is clearly a matter of public interest. Nevertheless, Vodafone firmly believes that the agreement is structured in such a way as to give any new entrant to the market a significant leg up and that the proof is clear in 2degrees' imminent launch.

Concluding remarks

42. Vodafone remains committed to finding a commercial alternative to regulation of MTAS and to participating in the Commission's investigation.
43. The onus is on the Commission to complete two important tasks and to do so with urgency:

⁸ <http://www.istart.co.nz/index/HM20/AL29454/AR211872>

- the Commission needs to revise its cost benchmarking approach in the light of the feedback it has received and return to the more dependable approach it took in 2005 and 2006. A revised benchmark rate is likely to be 14.3cpm; and
 - the Commission needs to correct the material errors in the current model, correct its factual scenario in the light of its revised benchmarking, and reissue the model to interested parties for comment.
44. It is only when this work has been done that Access Providers will have a fair opportunity to review whether their undertakings should be revised to the long term benefit of consumers and, if so, on what prices and terms.

1. Introduction and Overview

45. Vodafone welcomes the opportunity to respond to the Commission's draft report.
46. In total, the changes to MTAS rates proposed by the Commission in its draft report will put at risk over \$300 million in revenue for our business over 5 years. This cannot help but have a material impact on our business plans and capacity to invest in New Zealand. Such changes should not be undertaken lightly, and must be supported by solid analysis and evidence. They should not be based on unreliable estimates of the costs faced by mobile operators when providing services; and without due consideration being given to whether such changes will actually make a material difference for consumers.
47. Our submissions on the Commission's draft report are provided in this context.

Positive aspects of the draft report

48. There are a number of aspects of the draft report which Vodafone supports. For instance, Vodafone agrees with the Commission's draft views that:
- a cost-based pricing principle (rather than bill and keep (BAK)) is likely to best give effect to the section 18 purpose statement in the Act.⁹ This is consistent with regulatory best practice around the world, and recognises that an immediate move to BAK pricing would have a number of undesirable consequences – including likely price increases for low-spend pre-pay mobile consumers.¹⁰ In this regard, it is noteworthy that 71.5 per cent of our customers are pre-pay users.¹¹ The detrimental consequences for consumers of BAK pricing (especially low-spend pre-pay consumers) have been rightly noted by the Commission,¹² and are consistent with the recent findings of the UK Competition Council (UKCC). We believe that many of the principles that underpin this analysis are equally relevant for a large

⁹ See Commerce Commission, *Draft report on whether the mobile termination access services (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination) should become designated or specified services*, 30 June 2009, at para 423 on p. 106.

¹⁰ This is because these consumers tend to receive more calls and texts than they make given their budget conscious attitude to consuming. This means these consumers generate large termination revenue for mobile operators. The prospect of high termination revenues for these customers are often used by mobile operators to subsidise their retail prices. Immediate removal of termination revenues would make these customers unprofitable on their current retail pricing plans.

¹¹ See http://www.vodafone.com/start/media_relations/news/group_press_releases/2009/ims_q1_09.html

¹² Commerce Commission, *op. cit.*, at para [409] on p. 104.

drop in the price of mobile termination. That is, under the Commission's proposed regulatory factual, the price of voice termination would likely fall from 15cpm in 2010 to 5.8cpm in 2011. While not of the same magnitude as a move to BAK, this would still represent a price decrease of over 60 per cent and so would still be likely to have substantial detrimental impacts on the welfare of pre-pay mobile consumers in New Zealand. Further, Vodafone believes there are good reasons to believe it may be appropriate for mobile termination rates to lie above estimates of the total service long-run incremental cost (TSLRIC) both for voice¹³ and SMS¹⁴ termination;

- non-discrimination provisions are not required under regulation to ensure a competitive market in the long-term interests of end-users, provided MTAS prices are cost-based.¹⁵ On-net price discounting is an important way in which mobile operators compete to attract more customers to their network, and has resulted in significant benefits for New Zealand consumers in recent years. As the Commission notes, on-net prices have come down (and volumes of on-net communications rapidly increased) massively in New Zealand in recent years. For instance, consumers can now enjoy up to \$400 worth of texts to Vodafone consumers for only \$10 as part of our TXT2000 plan. If an outright ban on on-net price discounting were to be implemented, popular offers such as BestMate, TXT2000 and Family would have to be immediately removed from the market. This would not be a desirable outcome for consumers who value these propositions and have adjusted their consumption patterns in light of them. What is needed is not a ban on these types of offers, but an assurance that all operators can compete on their merits to provide these types of offerings to consumers. While we agree that the greatest price decreases for mobile services in New Zealand in recent years have occurred for on-net calls and texts, this has not meant that off-net prices have also not fallen; and
- undertakings can contain provisions (such as FTM pass-through) that are not possible under regulation. This is particularly important in this investigation given Vodafone has put forward a FTM undertaking that would have the effect of requiring access seekers to pass-through, in full, any reductions in FTM termination

¹³ For instance, to take account of the existence of network externalities and to recognise the likelihood of error in estimating the TSLRIC of providing mobile termination.

¹⁴ For instance, in order to take account of the cost of greater SPAM when the price of SMS is set at very low levels – see the section in our submission on SMS termination.

¹⁵ Commerce Commission, *op. cit.*, at para [897] on p. 196.

rates to consumers of retail FTM services. We have also committed to pass-through in full any reductions in FTM termination rates we receive from other providers of FTM termination in our undertakings.

49. Given Vodafone has commented extensively on these issues in its previous submissions in this investigation, we do not intend to repeat these submissions here. However, we may re-visit these issues in response to the submissions of other parties to the draft report if necessary.
50. Vodafone is also heartened by the suggestion that the Commission would consider including a glide path as an implementation issue if the Minister accepted a Commission recommendation to regulate the service.¹⁶ Responsible regulators all around the world recognise that immediate reductions in MTAS will have greatly disruptive effects in the mobile market. Mobile operators assess the profitability of consumers based on both the retail revenues and the termination revenues they receive. A consumer (such as a low-spend pre-pay customer) that would ordinarily not be profitable due to the low retail revenues they generate can be profitable to serve because of the termination revenues they generate whenever people call or text them. Retail price offerings used to attract low-spend pre-pay customers that were profitable when termination rates were high may no longer be so when termination revenues dramatically fall. The immediate removal of termination revenues may also put at risk investment plans for mobile operators who had previously expected these revenues to be available. This is especially the case here in New Zealand where Vodafone and Telecom had every right to expect termination revenues would be available to them when they invested in their 3G networks due to 5year agreements entered into with the Crown in 2007. To minimise these disruptive consequences, it is important that large-scale reductions in termination rates of the type contemplated by the Commission in its draft report occur over a managed glide path. Large and unexpected swings in mobile termination pricing cause havoc for business plans, thereby raising uncertainty for mobile operators and consequential detrimental dynamic effects on industry investment and pricing plans and therefore consumers. These points are noted further in the MTM termination section of this submission, and referred to by Analysys Mason in a report provided as an attachment to this submission. In this regard, Analysys Mason finds that:¹⁷

We believe it [the Commission] should implement a gradual reduction in MTRs (mobile termination rates) over time to avoid any sudden distortional effects on the market, ultimately to the detriment of both operators and consumers.

¹⁶ Commerce Commission, *op. cit.*, para [606], at p. 139.

¹⁷ Analysys Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining MTAS prices*, 27 July 2009, p. 1.

51. In reaching this view, Analysys Mason note similar findings from telecommunications regulators in the European Union, the United Kingdom, France, the Netherlands, Spain, Hungary and Australia.¹⁸
52. While encouraged that the Commission would consider a glide path as an implementation issue if it were to regulate the service, we believe it should go further and actively recognise the benefits for consumers of a glide path when modelling rates that would likely be set under regulation in its cost-benefit analysis of the impacts of mobile termination regulation.

Vodafone recognises the attempts to model the costs and benefits of FTM termination regulation, but believes the Commission erred in not extended its model to consider the effects of regulating MTM voice and SMS termination

53. Vodafone welcomes the release of the Commission's cost-benefit model alongside the Draft Report. Where access providers are putting forward undertakings as an alternative to price regulation of a service, it is crucially important that the net gains or losses of regulation compared to these undertakings are estimated. We also welcome the Commission's recognition in its cost-benefit model that reductions in FTM termination rates can have detrimental impacts for mobile consumers, as mobile network operators will be likely to respond to reduced termination revenues in ways that may harm retail mobile consumers (including the possibility of increased retail prices; slower reductions in retail prices and/or reduced investment in future mobile network infrastructure or service quality). We believe the Commission's attempts to model these detriments demonstrates it is cognisant of the varied impacts regulation of FTM termination can have on both fixed and mobile consumers. While we have serious concerns with a number of the methodological and input assumptions applied by the Commission in its model, we none-the-less believe it is commendable that it has actively sought to quantify the effects of potential regulation of FTM termination in New Zealand.
54. While the Commission has provided a cost-benefit model, we are disappointed that the model is only relevant for measuring the effects of regulating FTM voice termination and does not extend to quantify the impacts of regulation of MTM voice and SMS termination services. This is a critical oversight that must be remedied by the Commission before Access Providers are given another opportunity to modify their undertakings and before the Commission makes a final recommendation to the Minister on whether to recommend regulation of these services. This is because the effects of regulation of MTM voice and SMS termination are particularly unclear given these services generate both revenues and costs for all mobile operators. This

¹⁸ Ibid., pp. 12 – 13.

has been recognised by the Commission in its previous investigation into mobile termination where it has acknowledged that:

*A reciprocal reduction in the termination rate for mobile-to-mobile calls has two effects for a mobile network operator. While the cost of terminating outwards mobile-to-mobile calls on the other relevant mobile network will fall, so too will the revenue gained from terminating inbound mobile-to-mobile calls. The net effect will depend on the precise traffic patterns between the two networks.*¹⁹

55. Vodafone has consistently submitted that the net impact of reduced MTM voice and SMS termination rates will be small for mobile operators in New Zealand. While we understand the conceptual theory that has been advanced by 2degrees that high termination rates may disadvantage its ability to prosper in the market in New Zealand, we believe these concerns are unfounded when one looks at the net impact of reductions of MTM voice and SMS termination on a mobile operator's cash flows. This is even less of an issue when it is recognised that the rates 2degrees will pay Vodafone for MTM voice and SMS termination rates in the secret deal agreed between the parties in September last year are some of the [

] VNZCOI.

56. We believe the Commission must carefully analyse these net impacts before reaching a final view on whether to recommend regulation of these services to the Minister, including by way of constructing a cost-benefit model to analyse these effects. It must also disclose this analysis to interested parties for comment before Access Providers are given another opportunity to modify their undertakings and before the Commission reaches a final view on this matter. This matter is discussed further in the section in this submission on MTM termination.

Major areas of concern with the draft report

57. While Vodafone believes there are some positive aspects of the draft report, we believe the Commission has erred in a number of its findings in the draft report. Cumulatively (and in some cases individually) these errors lead the Commission to a set of overall conclusions that we do not believe are supported by its analysis. The vast bulk of our submission addresses these concerns.
58. In making these submissions, we believe it is important to consider each of the three MTAS services individually. Each service has a number of unique characteristics that mean the

¹⁹ Commerce Commission, *Schedule 3 Investigation into Regulation of Mobile Termination, Reconsideration Final Report*, p73.

analysis of whether to regulate each service must be considered on its own terms. For instance:

- reduced prices for FTM termination may have both a positive impact for fixed-line consumers (in terms of reduced retail FTM prices) and a negative impact for mobile phone users (in terms of increased retail mobile prices and/or reduced investment in mobile infrastructure and service quality). Large reductions in FTM termination rates will therefore have ambiguous effects for consumers as a whole;
- reduced prices for MTM termination, on the other hand, will decrease both mobile termination costs and revenues for mobile operators. Whether the cost savings of lower termination rates outweigh the reduced revenue for a mobile network operator will depend on the make-up of its consumer base, and in particular on whether their consumers tend to be, on average, net makers or receivers of calls. Reduced MTM voice termination rates may lead to greater competition for high-spend on account customers who tend to make more calls than they receive; but is likely to lead to less competition for low-spend pre-pay consumers who receive more calls and texts than they make. This makes the net impact on competition in the mobile market far more ambiguous than the Commission's draft analysis would suggest; and
- SMS services are, by their nature, very different to voice services. With a voice call, two consumers are involved in the call but only one of them will pay for it (ie the calling party). With SMS communication, however, both parties involved in the communication pay for it as consumers take turns in sending and receiving texts from each other. This has important implications for the proper analysis of SMS termination which we feel the Commission has not adequately considered throughout this investigation. We believe that once a more "back to basics" analysis of SMS termination is undertaken, it becomes clear why only one regulator in Europe – France – has ever sought to regulate SMS termination rates. It is also noteworthy that France has elected to set a regulated price for SMS termination well in excess of its estimate of the cost of providing SMS termination and 6-7 times the rate proposed by the Commission for New Zealand. This is largely due to concerns about the risk of SMS SPAM – a factor thus far not considered in detail in the Commission's analysis of this issue.

59. Given the unique considerations relevant to a proper analysis of each of these services, Vodafone has chosen to divide its submission to the draft report into three main sections – one for each of the three MTAS services under consideration. Our key conclusions from our

consideration of each service are set out below.

FTM termination

60. With regard to FTM termination, Vodafone believes the Commission has erred by:

- using an unreliable “finger in the air” approach to estimating the cost of mobile termination in New Zealand. It has not sought to directly estimate the cost of providing mobile termination in New Zealand; not sought to adjust overseas cost estimates for factors more relevant to New Zealand; and not held to its own proposed pricing principle for the service by benchmarking against raw cost model estimates from overseas rather than its usual practice of benchmarking against prices set by regulators in overseas jurisdictions. These concerns are supported both by Covec in its attached report and by Analysys Mason (the firm that has been involved in constructing seven of the nine models relied upon by the Commission in its benchmarking analysis). It is instructive that Analysys Mason finds that:

The Commission’s benchmark analysis of MTAS costs is simplistic and produces a result that risks being inaccurate: it is based on a limited sample of benchmarked MTAS costs, characterised by a large variance and, without any adjustments to take into account the limited comparability of the countries included in the benchmark. Further, the erroneous exclusion of relevant benchmark data for Hungary and the inclusion of France (with a different costing methodology compared to the one recommended by the Commission) has a significant impact on the result.²⁰

Analysys Mason’s comments in relation to France are particularly pertinent as it was the organisation that developed the cost model used by ARCEP in France. Covec also identifies both Hungary and Greece as countries that should be included in the Commission’s benchmark analysis.²¹ Analysys also observes that regulators often set cost-based prices at levels well in excess of their cost model estimates. It also recommends the Commission revise its cost model estimate, possibly by defining the reference cost estimate using the top of the range of its cost estimates or the 75th percentile if it continues with its current benchmarking methodology.²² Covec shows that if the Commission were to use the 75th percentile, and benchmark against prices set by regulators rather than the raw outputs of their

²⁰ Analysys Mason, Assessment of the Commerce Commission position of the Commerce Commission of New Zealand in determining MTAS prices, 27 July 2009, p. 4.

²¹ Ibid., p. 8.

²² Ibid., p. 1.

models, then the benchmark cost estimate would be 14.3cpm.²³

- benchmarking against only one overseas cost model to estimate future reductions in cost over time, based on material provided by Analysys Mason and Covec. When regard is had to cost path material available in five of the nine models against which it benchmarks costs (rather than simply by focusing on cost path information for the Swedish cost model), Covec²⁴ finds it would be appropriate to assume the cost of voice termination would decrease by 4.7 per cent each year (rather than the 10 per cent figure assumed by the Commission). Covec²⁵ shows that if an initial benchmark of 14.3cpm is used for 2009, this would imply a cost benchmark of 10.7cpm by 2015;
- assuming FTM pass through will start at 85 per cent under regulation in 2011, and rise to 100 per cent by 2015. This assumption is based on a view that regulation of FTM termination will greatly promote competition in the downstream market within which retail FTM services are provided. We believe the Commission's assumptions in this regard are fanciful, and based on a flawed analysis of past pass through observations in New Zealand. Further, it is entirely inconsistent with observations of FTM pass through in overseas jurisdictions, which range from as low as 25 per cent in Australia to only 64 per cent in the UK. These are countries that have been regulating FTM termination for many years, and should provide a better indication of likely pass through in New Zealand than hopeful theoretical postulations about possible future pass through here under regulation;
- under-estimating the extent to which retail mobile consumers will suffer as a result of reduced FTM termination charges. Reductions in FTM termination rates represent a transfer of revenues from mobile operators to fixed-line operators. As a result of this, it is commonly accepted in the academic literature that this will have an effect on a mobile operator's operations in a way that is likely to lead to a number of detrimental effects on mobile consumers. It is simply naive to assume mobile operators will not adjust their business operations in response to a large and sudden decrease in mobile termination revenues. Irrespective of the state of competition in the retail mobile market, mobile consumers must expect to face higher retail mobile prices than would otherwise be the case under regulation of

²³ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, Table 1 at p. 2.

²⁴ *Ibid.*, para [9] at p. 3.

²⁵ *Ibid.*, Table 7 at p. 15.

FTM termination. As indicated by Covec²⁶ in its report, the Commission should expect the waterbed effect to be 75 per cent in New Zealand;;

- failing to adequately capture those conclusions it does reach about regulation of FTM termination in its cost benefit model. This is particularly the case for the size of the waterbed effect in the Commission's cost benefit model. The attached report by Covec²⁷ finds that:

The Commission fails to allow for elasticity of mobile subscription demand when calculating the increase in retail mobile prices that will occur under the waterbed effect. The result is that the increase in mobile prices is under-estimated and the results produced by the waterbed model do not accord with the Commission's own assumptions. Correcting this error alone eliminates about half of the Commission's estimate of the net consumer benefits of regulation.

- once this error in the estimation of the waterbed effect is taken into account, and a waterbed effect assumption of 75 per cent is used, it can be shown, using the Commission's own cost-benefit model, that mobile consumers would be worse-off as a result of the Commission's proposed FTM termination regulation by anywhere between \$339.9 million and \$364.5 million even if all the Commission's other assumptions are accepted;
- not modelling in its cost-benefit model how reductions in mobile termination rates under regulation should more appropriately reflect a glide path. Large and immediate reductions in mobile termination rates can lead to significant detrimental impacts for mobile consumers (especially low-spend pre-pay consumers) and to mobile operators' business plans. This has been recognised by responsible regulators all around the world, and is noted in some detail by Analysys in its attached report. It would be reckless for the Commission to do otherwise and we believe it must adjust its cost-benefit model to recognise that mobile termination prices should come down more gradually under regulation than that proposed by the Commission in the draft report.

61. When all of these errors in the Commission's analysis are corrected, the case for rejecting Vodafone's undertakings falls away. Indeed, using the Commission's own cost-benefit model, it can be demonstrated that under assumptions of:

²⁶ Ibid., para [142] at p. 31.

²⁷ Ibid., para [18], at p. 4.

- a benchmark cost estimate of 14.3cpm in 2009 that declines by 4.7 per cent each year;
- FTM pass through of 41 per cent;
- MTM pass through of 75 per cent; and
- a reduction in regulated mobile termination prices under a glide path of at least three years,

then consumers as a whole would actually be worse off under regulation of FTM termination by between \$47.8 million and \$50.5 million.

62. Given the fundamental modelling errors in both the Commission's cost benchmarking and cost-benefit model, Vodafone believes it would be irresponsible for it to offer further reductions in FTM termination rates in an amended undertaking. Indeed, given the guarantee of 100 per cent pass through by Telecom that currently exists under the MTR Deeds (and which will not exist under Telecom's undertaking), it is likely consumers would be best off under the current MTR Deeds. In this regard, acceptance of Telecom's undertaking would remove the pass-through guarantee under Telecom's MTR Deed yet have all the same impacts in the retail mobile market. This is because mobile termination revenues will decrease by as much under the undertakings as they will over the remaining period of the MTR Deeds.
63. This is not to say that Vodafone would not consider providing amended undertakings in the future. If the Commission were to correct its cost-benefit model for the fundamental flaws identified by Covec, and provide more compelling evidence-based arguments in support of its assumptions (especially around the cost of mobile termination), then Vodafone would consider providing further amended undertakings. Vodafone is always keen to see if it can find better commercial solutions in advance of regulation that provide better outcomes both for itself and for consumers than can be achieved under regulation. However, there has to be a reasonable evidentiary basis for believing such amended undertakings would generate net gains for consumers.

MTM termination

64. The Commission's key findings with regard to MTM termination are that:
- the retail mobile services market displays a number of concerning signs, including high levels of concentration with only two network operators and low levels of voice usage in New Zealand relative to the rest of the world;

- the price of MTM voice termination lies well in excess of its benchmark estimates of the cost of providing the service;
- immediately reducing the price of MTM termination to cost for a new entrant will remove a significant barrier to efficient new entry and expansion in the market; and
- ensuring such new entry will generate a substantial improvement to competitive pressures in the retail mobile market that will generate significant benefits to consumers that outweigh any corresponding detriments that may result from immediate and substantial decreases in the price of MTM termination.

65. Vodafone does not agree with any of these four conclusions. With regard to the overall level of competition in the retail mobile services market, Vodafone notes that its average retail price per minute for voice calls has fallen by 18 per cent on average across *each* of the years between 2004-05 and 2008-09. Further, the volume of voice calls per customer has increased on average by 15 per cent *each* year over the same period. While it is true that our on-net consumers have benefitted considerably from reduced prices in recent years due to attractive propositions such as BestMate and Family, off-net customers have also enjoyed considerable price decreases in recent years. It is hard to think of any other consumer market in New Zealand that has shown these kinds of price decreases and volume increases in recent years. Indeed, the consumer price index has *risen* by 15.51 per cent over the entire period (or a little over 3 per cent on average each year).

66. Further, while there has historically only been two network operators in New Zealand, 2degrees is set to launch its network in August of this year, and this will occur well in advance of any regulatory intervention on MTM termination rates. Further, there are presently five individually branded mobile virtual network operators (MVNOs) now providing services to New Zealand mobile phone users, and the number is expected to increase to eight by the end of this year. One of these MVNOs – TelstraClear – has just signed an MVNO deal with Vodafone that enables it to resell services on our 3G network and which gives it access to bulk minute pricing arrangements.²⁸ Already, TelstraClear has over 30,000 mobile customers and this should be expected to rise in the near future. While the market may have been highly concentrated in the past, it is likely to be significantly less so in the future.

67. With regard to the comparison of the price and underlying cost of providing MTM termination, Vodafone has (as indicated above) significant concerns about the methodology used by the Commission to estimate the cost of mobile termination in New Zealand. These

²⁸ See <http://www.nbr.co.nz/article/sweet-revenge-telstraclear-jumps-back-bed-with-vodafone-104824>

concerns are shared by Analysys, Covec and NERA and suggest the Commission has no compelling evidence to suggest the cost of mobile termination is currently at 7.2cpm in New Zealand. As indicated above, using a more reasonable cost benchmarking methodology, the cost of mobile termination is more likely to be 14.3cpm. However, even if the Commission sticks to its existing flawed methodology, it must recognise that France should be excluded from its benchmarking analysis and Hungary and Greece included. Doing so would immediately lift its benchmark cost estimate to 10.21cpm. This estimate of cost compares favourably to the terms and conditions [

] VNZCOI.

68. Given the terms and conditions 2degrees will face when interconnecting with us, it is hard to see how MTM termination rates can be considered a barrier to its entry into the retail mobile market. Indeed, the fact it is set to launch its network almost a year and a half before regulated prices would be likely to come into effect amply demonstrates that existing termination rates are not a barrier to its entry into the mobile market in New Zealand.

69. Further, the suggestion that 2degrees may not be able to compete because of high termination rates is not supported by the facts. The prices contained in our secret deal with 2degrees are clearly [**] VNZCOI** those that a more reasonable benchmarking exercise would imply. This doesn't take account of other benefits included in our interconnection agreement with 2degrees where it will be able to [

] VNZCOI which have the effect of further subsidising its entry into the retail mobile market in New Zealand.

70. Of great concern to Vodafone is the failure of the Commission to construct a cost-benefit model to analyse the impacts of different MTM termination rates in the factual of regulation compared to rates that will occur if there is no regulation. In this regard, the Commission has instead chosen to only complete a "qualitative analysis" of the impacts of regulation of MTM termination. This is a critical oversight for two reasons:

- first, it fails to take account of its previous findings that MTM termination is both a source of revenue and a cost for all mobile operators. Once this is recognised, it is unclear whether reductions in MTM termination rates will have any net impact on interconnection payments between mobile operators; and
- second, it fails to adequately consider whether 2degrees will actually be better or worse off under the secret deal than it would be under regulation.

71. The first point is important because if the Commission were to significantly lower MTM

termination rates under regulation, this would decrease both termination revenues and costs for mobile operators. Overall, therefore, it would be likely to have a trivial impact on the net payments made between mobile operators. Given the amount of traffic 2degrees is likely to generate and receive in its initial years of operation, the net impact of reduced termination rates on its business is likely to be significantly less than this amount.²⁹

72. The second point is equally important because if the terms of the secret deal are more favourable for 2degrees than the Commission's proposed rates under regulation, then 2degrees will likely chose to stick with the rates contained under its secret deal. If that is the case, regulating the service is likely to have no impact in the retail mobile market at all. Based on a series of plausible assumptions, our analysis shows that 2degrees should expect to be better off by around \$2 million under the secret deal over the next few years compared to the rates the Commission is suggesting it would set under regulation. The extent to which 2degrees would be made worse off under regulation increases if the Commission adjusts its benchmark cost estimates as we suggest it should.
73. The failure to adequately analyse the dual impacts of reduced MTM termination rates on a mobile operator's termination revenues and costs has also meant the Commission has not given due consideration to the likely detriments that will flow for low-spend pre-pay consumers as a result of rapid decreases in MTM termination rates under regulation. That is, as recognised by the Commission in its analysis of whether to accept BAK as a pricing principle for MTM termination, some groups of consumers tend to receive more calls than they make. This is especially the case for low-spend pre-pay customers who tend to make less calls than others on average. These customers can still be profitable at low retail prices, however, because they receive calls from other consumers and therefore generate termination revenues to help recover the costs of serving them. If MTM termination rates are to be substantially and quickly decreased under regulation, this will threaten the ability of mobile operators to profitably serve low-spend pre-pay customers at existing termination rates, and may lead to rapid and unexpected price rises for these types of consumers.³⁰
74. Hence, while rapidly decreasing MTM termination rates may increase competition for some groups of consumers, it is likely to reduce competition for low-spend pre-pay customers. This

²⁹ Nb. this should not be taken to suggest that a move to BAK would have no impact on consumers. As correctly noted by the Commission, a change to BAK pricing would have a number of detrimental consequences for consumers – especially low-spend pre-pay consumers.

³⁰ As discussed in greater detail in the MTM termination section of this submission, it may alternatively lead to the imposition of minimum monthly top-ups; shorter credit expiry periods etc.

consequence has been recognised by other regulators around the world. For instance, Ofcom has recently noted that:³¹

All other things being equal, call charges are likely to become less important, [when the termination rate is lower] though subscription fees or 'access' related charges (such as minimum top-ups) could become more important.

Retail charges for other services, particularly for newer services such as data services may also be set at a higher rate than would otherwise have been the case. Charges for these services may also fall less quickly than they may have.

75. As a result of these links, Ofcom has expressed the view that distributional effects are a relevant consideration when comparing possible regulatory regimes for mobile termination:³²

Which consumers will be better off, and which worse off, as a result of adopting the option? While the overall impact on consumers is examined under the concept of economic efficiency, the different approaches might have some distributional effects, for example, between high and low usage mobile users.

76. Vodafone believes the Commission must give further consideration to the potential detriments and distributional consequences that would follow large and immediate reductions in MTM termination rates under regulation. This provides added weight to the need for a glide path so that reductions in MTM termination rates can be more gradually implemented over time and the detrimental consequences for low-spend pre-pay consumers can be more carefully managed.

77. Vodafone is cognisant that when the Commission chose to launch its MTAS investigation in November 2008, it noted that the terms of the secret deal made available to 2degrees would not be available to any other access seekers to the mobile market in New Zealand.³³ In order to ameliorate this concern, Vodafone now commits to make the terms of its secret deal with 2degrees available to any other new mobile network operator in the mobile market in New Zealand if the service does not become designated under the Act. We believe this should provide added comfort that there is no barrier to entry on account of MTM (and SMS)

³¹ Ibid, paragraph 6.42 – 6.43.

³² Ibid, paragraph 6.17.

³³ In this regard, the Commission noted that "Whereas the current commercial agreement with Vodafone is restricted to NZC, a regulated rate or an undertaking would be applicable to all access providers and access seekers, and may better give effect to the long-term interest of end-users than an offer that is restricted to only one party." See Commerce Commission, *Reasons for Commerce Commission decision to investigate mobile termination access services*, 6 November 2008, at para [21] on p.5.

termination for any other potential entrant into the mobile market in New Zealand. The rates contained in this agreement are clearly [] **VNZCOI** those that would be reached under a reasonable and responsible benchmarking exercise and are immediately available to any new entrant now (rather than having to wait for regulation in 2011).

78. The Commission simply must construct a cost-benefit model to analyse the impacts of its proposed regulatory fact for new entrants compared to the rates they will face in the MTM undertakings and the commercial deals that currently exist in the market. Once this is done – and the Commission’s cost benchmarking is appropriately adjusted to adopt a more reasonable methodology – it will be clear that regulation of MTM termination rates will make no material impact on new entry in New Zealand. It will only have the effect of making new entrants worse off as compared to the terms contained in the secret deal under all plausible assumptions about traffic volumes in the market. In these circumstances, proceeding down a regulatory path will create costs for no discernible benefit for end-users.

SMS termination

79. Vodafone continues to be disappointed by the limited analysis conducted by the Commission in relation to SMS termination. Of most concern to Vodafone is the failure of the Commission to properly analyse the unique features of SMS communication that make the service different in nature to voice communications. In particular, Vodafone is concerned that the Commission:

- has not conducted a proper market analysis of forces that are constraining the ability of mobile operators to set high retail SMS prices – including the emergence of substitute web-based instant messaging services that enable consumers to send and receive SMS-like products on their mobile phones at low (or zero) per message prices;
- fails to acknowledge the retail market is already providing substantial benefits to consumers without regulation of SMS termination rates, including recognising that average retail prices for SMS services on Vodafone’s network have fallen by 29 per cent on average every year since 2004-05, and volumes of SMS consumed per customer have increased by 37 per cent over the same period. While on-net SMS prices have come down substantially in recent years, there are also very good any-net SMS rates available in the market;
- continually ignores the fact that SMS communications are significantly different to voice communications. While a voice communication involves one party calling

another and paying for the call, an SMS communication involves two consumers sending messages back and forward to each other and sharing the cost of the communication evenly. This difference in the nature of SMS communications means that traffic between interconnecting networks tends to roughly balance out over time so that net termination payments between interconnecting parties tend to be trivial;

- fails to construct a cost-benefit model to compare the net payments likely to be made between new entrants and existing operators to see whether SMS termination payments are indeed likely to be a significant barrier to entry for a new entrant; and
- fails to adequately consider how the rates contained in the secret deal agreed between 2degrees and Vodafone mean that 2degrees will likely be better off under the deal than under regulation.

80. The basis of the Commission's rationale for regulating would appear to be that:

- if a new entrant wants to lure customers away from a rival network, it must ensure it can send off-net SMSs to its existing service provider at rates that match the on-net rates the existing service provider sets;
- doing so will likely lead consumers on the new entrants network to send large volumes of SMSs to existing operators networks; and
- if off-net prices on the existing operators networks are high, significantly less SMS traffic will come back in reply.

81. While Vodafone can understand this conceptual argument, it does not believe it is supported by any evidence in the market. Forces are already at play in the retail mobile market that are seeing the price of off-net SMSs coming down. Telecom has for a long time offered large bundles of off-net texts to pre-pay customers through its \$10TXT offering and has recently moved to low any-net pricing on its XT network. Vodafone also offers low off-net pricing to its on account customers via its TXT600 offering that enables consumers to make up to 600 SMSs a month for only \$12.95. Pressures to decrease off-net SMS rates will continue as the competitive constraint from instant messaging (IM) services continues to place pressure on the ability of mobile operators to maintain current retail SMS prices.

82. More importantly, our experience shows that the amount of SMSs that networks send each other tends to be roughly balanced, irrespective of market share. This is because when one

consumer sends an SMS to someone on another network, the person receiving the SMS tends to send one in response. If SMS termination rates are set on a symmetric basis, this means that the revenue a mobile operator receives from SMS termination tends to be roughly balanced by the costs it pays other operators for SMS termination. For instance, at present the level of out of balance traffic between Vodafone and Telecom is only [] **VNZRI** per cent, and the net payment made by Telecom to Vodafone in the last financial year was under [] **VNZRI** million.

83. Given a new entrant will only have very small traffic volumes, we expect the amount of net payment between 2degrees and ourselves will be trivial in the first few years of its operation. Indeed, given the terms of the secret deal agreed with 2degrees in September 2008, we expect that 2degrees will actually profit from SMS termination in its first few years of operation. Further, if the Commission were to regulate SMS termination rates to the levels set out in the Draft Report, we think 2degrees will actually be worse off under regulation than it would be under the secret deal. Because of this, we believe 2degrees would elect to stay on the secret deal rather than seek a regulated rate from the Commission in line with those set out in the Draft Report such that regulation will have no effect at all on its ability to enter or survive in the mobile market.
84. The only factor that may lead 2degrees to be better off as a result of regulation is if our customers choose not to respond to SMSs from 2degrees. This may be possible if existing operators set prohibitively high off-net rates. However, we think the nature of SMS communication means this is unlikely to be the case. Not only are off-net SMS prices declining as a result of the emergence of any-net deals in the retail mobile market, SMS substitute services are likely to also apply downward pressure on retail SMS rates going forward. Further, even under existing SMS retail prices our consumers tend to respond to Telecom customer's SMSs on average [] **VNZRI** per cent of the time.
85. Finally, we believe the Commission has failed to understand the benefits that come from setting higher SMS termination rates. High termination rates have a very particular advantage over low SMS termination rates in that they discourage SMS spam. If parties have to pay a price to send large numbers of bulk unwanted texts to consumers, they are discouraged from sending SMS spam to consumers. This contrasts with the internet world where, under bill and keep pricing arrangements, e-mail spam is now estimated to represent over 90 per cent of emails sent to consumers.
86. Existing termination rates work to provide considerable benefits to consumers. The balanced nature of SMS traffic between networks means that the level of SMS termination rate has a very small impact on the cash flows of interconnecting mobile operators. This has meant that

existing SMS termination rates have not prevented consumers from enjoying substantial cost savings and volume increases in recent years. However, existing SMS termination rates have served to limit the amount of SMS spam on mobile operators networks.

87. Given SMS retail prices are already low and subject to competitive constraint; both on-net and off-net prices are in rapid decline; the trivial level of net SMS payments between interconnecting carriers; and the secret deal that 2degrees (and now any other new entrant into the market) has for SMS termination, Vodafone does not believe there is any need for the Commission to recommend designation of SMS termination in New Zealand.
88. We believe this would be clear to the Commission if it made efforts to construct a cost-benefit model that sought to model the quantitative effects that regulation of SMS termination would be likely to have on the business case for a new entrant as compared to the rates set out in the secret deal.

Structure of this submission

89. Given the unique characteristics associated with each of FTM, MTM voice and SMS termination, we believe it is important to consider the merits of regulating each service individually. Accordingly, we have structured our submission so that each service is considered separately.
90. In addition to this, the submission contains appendices that:
- set out comments in relation to non-price terms and conditions contained in the undertakings (**Appendix One**); and
 - provide comments on the Commission's draft views on market definition for the purposes of this investigation (**Appendix Two**).
91. In support of its submission, Vodafone is also providing two experts reports:
- a report prepared by Analysys that discusses the Commission's benchmarking of cost estimates from overseas jurisdictions. Analysys' expertise in this matter is clear given it was involved in constructing seven of the nine cost models relied upon in its cost benchmarking analysis; and
 - a report prepared by Covec that discusses the cost-benefit analysis and modelling contained in the Commission's draft report.

FTM voice termination

A. Introduction

The Commission's draft views

92. The Commission's draft view that Vodafone and Telecom's FTM termination undertakings should be rejected and that FTM termination should be designated is based on a view that:
- the prices of FTM termination in the undertakings are substantially above its estimates of the TSLRIC+ of providing voice termination;
 - reducing the price of FTM termination would be expected to promote competition in the retail market within which FTM services are provided by removing an advantage fixed and mobile operators (such as Vodafone and Telecom) have when charging above-cost prices for FTM termination to rivals who only operate in the fixed-line market;
 - such promotion of competition will lead to a number of benefits to consumers, including FTM pass-through that would start at 75 per cent under regulation and grow to 100 per cent by 2015. That said, the Commission appears to mis-apply this assumption in its cost-benefit model as it seems to assume FTM pass-through will commence at 75 per cent under regulation in **2008** despite its own recognition that it would be unable to set regulated prices until 2011;
 - reducing mobile termination revenue for mobile operators will lead to a "waterbed effect" whereby they try to recover some (but crucially not all) of their lost termination revenue through higher retail prices for mobile services. While this will give rise to detriments for mobile phone users, the size of this detriment will not be sufficient to outweigh the benefits enjoyed by fixed-line consumers identified above.
93. Crucially, the Commission makes an important observation that we agree with: reducing FTM termination rates will have a positive impact for fixed-line consumers but a negative impact for mobile consumers. While the Commission separately finds that regulation of MTM voice termination will provide benefits to consumers, it is clear that it accepts that a waterbed effect is possible. Where this is the case, reductions in FTM termination rates will make mobile phone users worse off.
94. In support of its findings, the Commission has released its cost-benefit analysis which seeks to

quantify the contradictory effects of FTM termination rate reductions in the fixed and mobile markets and estimate which of these effects is greater. In this regard, the Commission finds that reductions in FTM termination rates to its estimates of the cost of providing the service from 2011 will, when compared to the undertakings put forward by Vodafone and Telecom:

- generate consumer welfare gains of between \$279.5 million and \$283 million between 2010 and 2015, based on its FTM pass through (and other) assumptions; and
- make mobile phone consumers worse off by as much as \$161 million to \$182.9 million over the same period, on the basis of its waterbed effect (and other) assumptions. Crucially, this assumes a maximum waterbed effect of only 50 per cent – in other words, that mobile operators only seek to recover a maximum of 50 cents out of every dollar of lost termination revenue through higher retail mobile charges. Implicitly, the Commission assumes mobile operators will absorb at least 50 cents out of every dollar of lost termination charges in reduced profits without this in any way affecting its business operations.

Overview of Vodafone's response to the Commission's draft views

95. The Commission is right to recognise the contradictory effects for fixed and mobile consumers of reduced FTM termination rates. We believe this is a positive aspect of its analysis.
96. As with any cost benefit analysis, however, conclusions on whether it is appropriate to regulate a service and not recommend acceptance of undertakings depends crucially on:
- the methodology used to analyse and model these conflicting effects; and
 - the assumptions used in that analysis.
97. The Commission has made a number of critical methodological errors in the way it has sought to estimate the effects of regulation in its cost-benefit model. These have been noted in the attached report by Covec. Of most significance, Covec finds that the Commission has failed in its model to adequately pick up the full size of the waterbed effect it is trying to model. In this regard, Covec³⁴ finds that:

The Commission fails to allow for elasticity of mobile subscription demand when calculating the increase in retail mobile prices that will occur under the waterbed effect.

³⁴ Covec, *op. cit.*, para [18], at p. 4.

The result is that the increase in mobile prices is under-estimated and the results produced by the waterbed model do not accord with the Commission's own assumptions. Correcting this error alone eliminates about half of the Commission's estimate of the net consumer benefits of regulation.

98. We agree with Covec that the Commission must correct this fundamental flaw in its model before it can reach a final conclusion on whether to recommend to the Minister whether he should accept the undertakings put forward by Vodafone and Telecom.
99. Equally importantly, the Commission's analysis of the costs and benefits of reductions in FTM termination depends crucially on key assumptions relating to:
- the cost of mobile termination in New Zealand;
 - the extent to which costs will decrease over time;
 - the extent to which reductions in FTM termination rates will promote competition in downstream markets and the extent of any pass-through of FTM termination rates into retail FTM prices for consumers; and
 - the extent to which reductions in FTM termination rates will generate detriments to mobile phone users, including by way of the waterbed effect and possible reductions in the level of investment by mobile phone operators in network upgrades and quality of service.
100. Regulatory best practice around the world also recognises the need for a glide path of reductions in regulated rates for FTM termination in order to better manage the harmful consequences large and immediate reductions in termination rates can have on some groups of consumers, and the harmful disruption this can cause to the business plans of mobile operators (and the long-term harm this can ultimately cause for consumers).
101. The Commission has made a number of critical errors in its assumptions around these matters that greatly skew its analysis of whether to recommend rejection of the FTM termination undertakings provided by Vodafone and Telecom in favour of regulation of this service. In particular, Vodafone believes:
- the Commission's methodology for estimating the cost of mobile termination in New Zealand is reckless and provides no reasonable evidentiary basis for believing mobile termination in New Zealand is likely to be as low as the Commission suggests. The flaws in the Commission's cost estimation technique have previously

been commented on in depth by Telecom, Vodafone, Covec and NERA. These flaws have also been embarrassingly exposed in the attached report by Analysys – the cost modelling firm that has been involved in constructing seven of the nine cost models against which the Commission has sought to benchmark New Zealand costs. Analysys Mason³⁵ concludes:

The Commission's benchmark analysis of MTAS costs is simplistic and produces a result that risks being inaccurate: it is based on a limited sample of benchmarked MTAS costs, characterised by a large variance and, without any adjustments to take into account the limited comparability of the countries included in the benchmark. Further, the erroneous exclusion of relevant benchmark data for Hungary and the inclusion of France (with a different costing methodology compared to the one recommended by the Commission) has a significant impact on the result.

- the Commission has done an even poorer job in estimating the extent to which costs are likely to decrease over time. In reaching its views on the extent to which costs should decrease over time, it has chosen to benchmark its cost rate reductions against the outputs of just one model. This is despite it having available to it information that shows cost trends over time in five of the nine cost models against which it has benchmarked its results. Both Covec and Analysys note this failing in the Commission's analysis, and conclude that a proper benchmark of cost reductions over time would lead to a number close to 4.7 per cent per annum;
- the Commission has greatly over-estimated the extent to which reductions in FTM termination rates will promote competition in the fixed-line market. Mobile termination rates are becoming an increasingly small fraction of the overall costs fixed-line operators face when competing to provide services to consumers. It is hard to understand why the Commission believes a further decrease in termination rates from 15cpm to around 7cpm would greatly promote competition in downstream markets when there seems to be no sign that reductions in termination rates from 50cpm in 1997 to 15cpm today has significantly promoted competition in fixed-line markets. Interestingly, the Commission's own analysis suggests fixed-line operators have **increased** their margins on FTM calls over time rather than decrease them (which would be expected if reductions in FTM termination rates were a factor that substantially promotes competition in retail fixed-line markets);

³⁵ Analysys Mason, *op. cit.*, p. 4.

- in consequence, the Commission has made what must frankly be considered heroic assumptions about the extent of FTM pass through under regulation in the future. In its cost-benefit model, it seems to think it will be able to immediately achieve 85 per cent pass through upon the commencement of regulation in 2011, and that this will increase to 100 per cent by 2015. Vodafone finds this assumption simply staggering. Analysis by Covec shows the Commission has greatly over-estimated the extent of historic pass-through in New Zealand by attributing all past reductions in retail FTM prices to reductions in FTM termination rates without considering other cost reductions fixed operators would have enjoyed when providing FTM calls since 1997. Covec estimates that a better measure of historic pass-through in New Zealand would be around 41 per cent. The Commission's assumptions around FTM pass through are also completely at odds with its own findings about pass-through in overseas jurisdictions, where pass-through has only been around 25 per cent in Australia since 2004; and around 64 per cent in the UK; and
- the Commission has engaged in wishful thinking by assuming mobile operators will seek to recover no more than 50 per cent of lost termination revenues through either reduced prices for retail mobile services or cost savings (such as via reductions in network investment or service quality). Reducing FTM termination rates represents a straight loss in cash-flow for mobile operators (net of tax effects). Unlike reductions in MTM termination rates, there is no offsetting reduction in a mobile operator's costs from reductions in FTM termination rates. It is naïve to think mobile operators will not make large adjustments to their operations (including their retail pricing) in response to such a fundamental shock to their business models. This effect will be even larger (and the consequences even more damaging for consumers) if there is no glide path under regulation.

102. The remainder of this part of our submission sets out in detail our arguments in relation to each of these points. On the basis of this analysis, we believe the following would be more reasonable assumptions for the Commission to make on each of the key variables identified above:

- based on the reports of Analysys Mason and Covec, we believe an appropriate benchmark cost for mobile termination should chose the 75th percentile of prices set by those countries overseas that use an appropriate model to estimate the cost of providing mobile termination in New Zealand. Once adjustments are made to sample an appropriate set of country benchmarks, an appropriate cost benchmark would be 14.3cpm in 2009;

- cost should be estimated to reduce over time by no more than 4.7 per cent per annum, based on an appropriately wider sample of benchmarks noted by Analysys Mason and Covec;
- the extent of FTM pass through should be 41 per cent (as advised by Covec);
- the extent of the waterbed effect should be assumed to be no less than 75 per cent; and
- any regulated reductions in FTM termination rates should involve a linear glide path towards costs of at least 3 years.

103. Once the Commission's model is adjusted for other errors noted in the Covec report (especially in relation to the mis-estimation of the waterbed effect), then the Commission's cost benefit model clearly demonstrates that consumers, on the whole, would be better off under the undertakings put forward by Vodafone and Telecom. In particular, a corrected version of the Commission's cost model would show that under the undertakings, consumers as a whole would be better off by between \$47.8 million and \$50.5 million.

There is no good reason for Vodafone to amend its FTM termination undertaking at this point in time

104. Given the fundamental modelling errors contained in the Commission's cost benefit model, and the poorly supported assumptions contained within it (especially in relation to its cost benchmarking and hopeful assumptions around FTM pass through), Vodafone believes it would be irresponsible for it to offer further reductions in FTM termination rates in an amended undertaking. Indeed, given the guarantee of 100 per cent pass through by Telecom that currently exists under the MTR Deeds (and which will not exist under Telecom's undertaking), it is questionable whether the undertakings should be accepted at all. In this regard, acceptance of Telecom's undertaking would remove the pass-through guarantee under Telecom's MTR Deed yet have all the same detrimental impacts in the retail mobile market. This is because mobile termination revenues will decrease by as much as under the undertakings as they will over the remaining period of the MTR Deeds, and therefore generate the same waterbed effects in the retail mobile market.

105. This is not to say that Vodafone would not consider providing amended undertakings in the future. If the Commission were to correct its cost-benefit model for the fundamental flaws identified by Covec, and provide more compelling evidence-based arguments in support of its assumptions (especially around the cost of mobile termination), then Vodafone would consider providing further amended undertakings. Vodafone is always keen to see if it can

find commercial solutions in advance of regulation that provide better outcomes both for itself and for consumers than can be achieved under regulation. However, there has to be a reasonable evidentiary basis for believing such amended undertakings would generate net gains for consumers.

106. Put simply, Vodafone will not put forward amended undertakings that would have the effect of severely damaging its business operations – and in a way that has the potential to cause substantial detriments to consumers on the basis of “finger in the air” assumptions about the cost of providing mobile termination and hopeful guesses about the extent of FTM pass through that will occur under regulation.
107. To do otherwise would be both irrational and irresponsible.

B. The Commission's cost benchmarking is reckless and unreliable

108. The Commission's benchmarking of mobile termination rates in the Draft Report is essentially unchanged from the benchmarking it released with its comments on the undertakings. The Commission has not used any New Zealand data to estimate the cost of providing mobile termination in New Zealand. Instead, it uses the median of a sample of hypothetical termination cost model estimates from nine other countries. The cost estimates in the sample range from NZ 4.8cpm (France) to NZ 12.5cpm (UK). The median is the cost estimate for Israel (NZ 7.2cpm).
109. As a result of the problems with the Commission's benchmarking, there is a great deal of uncertainty around the results of the Commission's quantitative analysis, and the case for regulation is not proven, even if we accept the Commission's other assumptions.

The Commission has a duty to do its benchmarking rigorously

110. In total, the changes to MTAS rates proposed by the Commission in its draft report will put at risk over \$300 million in revenue for our business over 5 years. This cannot help but have a material impact on our business plans and capacity to invest in New Zealand.
111. Given the amounts at stake, the Commission has a significant duty of care to ensure that if it does regulate, it does so on the basis of a robust estimate of the cost of mobile termination in New Zealand. The Commission must also seriously consider the risks for our business of setting the wrong termination rate. As the Commission points out in its report, there have been four wideband-CDMA network builds or upgrades in New Zealand since 2005, and it behoves the Commission not to jeopardise the ability of infrastructure investors to recover the costs of such investment by setting prices based on substandard analysis.
112. Further, it is not enough to say this is only an investigation into whether there should be regulation, and that the Commission will do a more rigorous job of benchmarking if it actually has to set prices under the initial pricing principle. The Commission has to make an assessment of the undertakings before it right now, and to do this properly means that its benchmarking must be as rigorous now as it would be under the IPP. Undertakings are an important way in which benefits can be provided to end users earlier than regulation, and not an inconvenient hurdle the Commission must negotiate on the way to regulation. The Commission must show the same care in estimating costs now as it would if and when considering regulatory prices next year.

The world's leading cost modelling firm – Analysys Mason – has provided a damning critique of the

Commission's benchmarking work to date

113. To assist the Commission, we have asked Analysys Mason to comment on the Commission's benchmarking. As the Commission will be aware, Analysys Mason was involved in building seven of the nine LRIC models that the Commission relies upon in its benchmarking analysis.³⁶
114. According to their website, Analysys Mason "is at the forefront of the development of cost models of mobile networks, having led the development of the use and application of long-run incremental costing (LRIC) in mobile networks worldwide." They "have an unrivalled appreciation of the policy, regulatory and commercial aspects of planning, developing and applying mobile costing systems based on LRIC and fully allocated cost (FAC) principles."
115. Their report reinforces many of the concerns raised by ourselves, Telecom, Covec and NERA about the Commission's approach to estimating the cost of mobile termination in New Zealand in this investigation.
116. Key findings of the Analysys report are:
- the Commission's methodology is "overly simplistic and risks leading to inaccurate results" and Analysys "believe that the approach taken by the Commission to estimate the MTAS cost for New Zealand is flawed";
 - the variance of the sample is very large, and "[t]his variance alone points to the limited reliability of any conclusion based on such benchmarks";
 - TSLRIC models are very sensitive to country-specific inputs, and once these are controlled for they would expect MTAS costs to be similar across various countries. The fact that there is a large variance in MTAS in the Commission's sample "leads to the conclusion that these countries selected for the benchmarking process are in fact not comparable to each other, or to New Zealand";
 - the benchmarking needs to be adjusted to take account of New Zealand's characteristics: "we would have expected the Commission to place significant emphasis on the assessment of the comparability of the benchmark countries on the basis of cost drivers, or rather on adjusting the benchmarks before selecting the median value as the reference MTAS cost in New Zealand";

³⁶ Out of the cost models referred to by the Commission in the benchmarking analysis, Analysys Mason advises that it developed those in use in France, Denmark, Israel, the Netherlands, Norway, Sweden and the UK. See Analysys Mason, *op. cit.*, fn. 3., p. 3.

- the median is not a reliable estimator for the cost of the MTAS in New Zealand: “we believe that, as a result of the large variance in benchmark values and the limited size of the observation sample, the application of the median is not sufficient to provide a reliable estimate of the MTAS cost in New Zealand”;
- the Commission’s analysis is not of sufficient quality to draw a conclusion on the cost of the MTAS in New Zealand: “[w]hile we can understand that the Commission might not have been in a position to conduct an accurate analysis of the cost drivers on the basis of publicly available information, we are surprised that, in the absence of a such a solid analysis, it could still develop a conclusive position on MTAS costs in New Zealand on the basis of benchmarking only”;
- the 75th percentile or “top of range” are better estimators of the MTAS in New Zealand given the lack of confidence Analysys has in the benchmarking methodology;
- regulators often prudently adjust model outputs to prevent under-recovery of costs and to allow for uncertainty in model outputs, and the Commission should give serious consideration to this given the limited reliability of the Commission’s approach;
- the cost benchmark for France should be excluded from the Commission’s benchmarking analysis because “the model is based on the historical cost accounting (HCA) standard ... [in] contradiction with the principles set by the Commission for the selection of benchmark countries”;
- the approach to determining the path of cost over time is “dubious” and based on “weak foundations” and that “The Commission selectively omits in its benchmark analysis two countries (Israel and Malaysia), for which the cost-path results of cost models indicate that MTAS cost remain broadly flat over time”;
- the Commission cross-checked its benchmarking against an avoidable cost estimate for MTAS rather than an incremental cost estimate: “the Commission’s attempt to validate its proposed MTRs in New Zealand is methodological ly incorrect. It erroneously puts on the same level the results of existing cost models in benchmark countries and an MTR target for 2012 that is purported to reflect the new EC Recommendation, using a LRIC costing approach that is significantly different from the currently applicable costing standards”; and

- the Commission should make allowance for the transition from 2G to 3G technology.
117. Together the findings of Analysys Mason are a damning critique of the Commission's benchmarking work by the leaders in the field of mobile termination cost modelling. The Commission has had virtually identical critiques from ourselves, Telecom, Covec and NERA, but to date has ignored these arguments.
118. Vodafone submits that this part of the Commission's analysis is of such poor quality that it needs to be redone to:
- adjust for comparability between countries;
 - use actual MTRs and not cost model outputs;
 - use the 75th percentile; and
 - take into account the glide paths that exist in other relevant jurisdictions.
119. If benchmarking cannot be done rigorously, then Vodafone submits that the Commission should change the initial pricing principle.

The Commission continues to ignore comparability

120. In the Draft Report, the importance of comparability is recognised but the Commission has not changed its benchmarking to reflect this. In our submission on the amended undertakings, we pointed out that the Commission has consistently used comparability conditions in other benchmarking exercises, but has not done so for mobile termination.³⁷ This is surprising given the evidence before the Commission that local conditions will significantly affect mobile costs.
121. As noted in Covec's benchmarking report, the country in the Commission's dataset that is most comparable to New Zealand is Norway, with the exception that per capita GDP is significantly higher.³⁸ Everything else equal, we expect traffic volumes to be higher and costs lower in a richer country. Once comparability is taken into account, at a minimum we cannot understand how the Commission can justify its conclusion that the cost of termination in New Zealand is lower than in Norway (NZ 9.5cpm). And as we explain below, there are many good reasons why the appropriate benchmark is higher than this.

³⁷ Vodafone submission on amended undertakings, May 2009, paragraph 154 – 157.

³⁸ Covec, *Benchmarking Mobile Termination Rates*, 6 May 2009, paragraph 45 and table 5.

122. We also note that New Zealand is in no way comparable to Israel – the country whose cost estimate effectively forms the Commission’s cost estimate for New Zealand – in terms of the basic characteristics that drive cost differences. This means the cost estimate from Israel will be a very poor estimate of the cost in New Zealand.

WIK’s results also demonstrate that country-specific factors are important

123. In WIK’s report that the Commission provided with the Draft Report, WIK claim their results show relatively small differences in cost estimates between countries with different characteristics.³⁹ Covec point out that this overlooks the fact that WIK’s results assume very different traffic volumes across the country types:⁴⁰

... the 20% cost difference between the ‘large sparse’ and ‘small dense’ countries is associated with an almost three times greater volume of traffic in the large country compared to the small country. Given the economies of scale that exist in mobile networks, this increase in volumes will offset much of the additional costs required to cover a larger area in the large country.

124. Analysys also reaches the same conclusion:⁴¹

The results calculated by WIK’s model for different types of country and different sets of demand and cost model inputs clearly show how sensitive MTAS costs are to country-specific inputs.

125. Once differences in traffic are taken out of the equation, WIK’s results show that larger and/or more sparsely populated countries have higher costs.

126. WIK’s results support the use of comparability criteria, and they also explain why the costs in the Commission’s benchmarking set vary over a wide range. Quite simply, country-specific factors are very important and averaging over estimates from a range of countries that are mostly very different to New Zealand will not produce a sensible estimate of the termination cost in New Zealand. The Commission’s benchmarking cannot be considered in any way robust if it does not take account of comparability.

There is a lot of uncertainty associated with the Commission’s benchmark

³⁹ WIK-Consult, Review of Submissions by Operators and reports by Consultants relating to the NZ Commerce Commission’s MTAS Investigation, 9 June 2009, page 8.

⁴⁰ Covec, *op. cit.*, para [67] at pp. 13 - 14.

⁴¹ Analysys, *op. cit.*, para [5] at p. 5.

127. The difference between the lowest and highest cost estimates is 7.7cpm, which is greater than the median. The significant variation in the benchmarks tells us that the median is subject to significant uncertainty. The probability that the median is an incorrect estimate of the cost in New Zealand is much higher than it would be if all the benchmarks fell into a narrow range. It is not even guaranteed that the cost estimate for New Zealand will fall within this range – given that the Commission benchmarks only a small number of countries and there is so much variation, it cannot be confident that it has covered all the possibilities.
128. As we showed in our earlier submission, the Commission’s benchmark can change greatly depending on the inclusion or exclusion of just one or two countries.⁴² We have demonstrated to the Commission that these changes have large and very real consequences for mobile operators,⁴³ and yet such changes do not reflect anything that actually determines the cost of mobile termination in New Zealand. The Commission has a duty of care in such circumstances to ensure it is not pushing the price of termination to levels below the costs faced by mobile operators to provide these services. The Commission must adopt a benchmarking methodology that is as robust as possible, and does not exhibit large differences in the output in response to small changes in the inputs.
129. The Commission’s own cost-benefit model results are also quite sensitive to changes in the cost estimate. Under all the Commission’s other assumptions, a 2009 mobile termination cost of 17cpm virtually eliminates all the net benefits of regulation. If costs decline at 4.7% per annum (see below) then a 2009 cost of 13cpm eliminates the case for regulation. This is a plausible cost estimate for New Zealand once local conditions are taken into account. The level of uncertainty associated with the benchmark and the sensitivity of the results to this assumption means the Commission cannot be confident about the case for regulation.
130. In simple terms, picking the “middle card out of the pack” tells you very little about the cost of providing mobile termination in New Zealand when the cost estimates for other countries vary so widely. Very little confidence can be placed in such an approach, especially when there is a large gap between the current median and the next highest price. This is not helped at all by including countries that have very different characteristics to New Zealand – in fact this may make the benchmark less accurate.

⁴² Vodafone submission on amended undertakings, paragraph 101 – 105.

⁴³ Ibid, paragraph 106-107.

The risk of setting the termination rate too low is not accounted for

131. In spite of the significant uncertainty about the cost estimate for New Zealand, the Commission uses the median of the dataset as the benchmark. Vodafone's view is that the negative consequences associated with setting the MTR too low outweigh those associated with setting it too high, and a benchmark above the median should be chosen. As we submitted, this was the practice adopted by the ACCC when it was faced with a similar benchmarking problem.⁴⁴
132. It is easy to imagine the consequences of applying a too low MTR to an existing operator: they would potentially be unable to recover the costs of their investments. Further, an operator planning to invest would anticipate this would be the case and therefore scale back their investment plans. This is clearly to the detriment of consumers.
133. The Commission is doing precisely this by using cost model outputs rather than actual MTRs set by regulators in its benchmarking exercise. The regulators in the majority of these countries do not consider these costs to be achievable and set higher regulated prices that ensure operators can recover their costs.
134. By not following the lead of other regulators, the Commission is undermining the ability of operators to recover the costs of their investments and thereby discouraging future investment. As the Commission points out in its report—there have been four w-CDMA network builds or upgrades since 2005, and consumers have benefited from this investment.
135. The Commission's dichotomy of access seekers and access providers is also not helpful when assessing asymmetric risk and dynamic efficiency for the MTAS. For MTM and SMS termination, all access providers are also access seekers. For FTM termination, all mobile operators are access providers. It is therefore incorrect to think of 2degrees or other potential entrants as access seekers for the MTAS. Using the perspective of an access seeker to determine the effects of regulation on entry and competition in the mobile market will lead to erroneous conclusions.

The Commission's benchmarking is inconsistent with the proposed IPP

136. The proposed initial pricing principle involves benchmarking against cost-based **prices** for networks **similar to the access provider's mobile network in comparable countries**. In order to assess the net benefits of regulation, it is crucial that the benchmarking used in the cost-benefit modelling reflects as accurately as possible the price that would be arrived at under

⁴⁴ Vodafone submission on amended undertakings, paragraph 115 – 116.

the IPP. However, the Commission's benchmarking is fundamentally inconsistent with its own proposed IPP.

137. First, the Commission benchmarks against cost estimates rather than prices. Many regulators have found that there are valid reasons to set regulated prices higher than cost (see below). An application of the IPP would have to take this into account, and the Commission's current benchmarking must do the same.
138. Second, the Commission has ignored the requirement to benchmark against comparable countries and similar networks. Again the current benchmarking therefore departs from what would be done under the IPP, and a cost-benefit analysis based on this benchmarking will produce an erroneous estimate of the net benefits of regulation.
139. There is no valid reason for the current benchmarking to depart from the IPP. Ignoring comparability and the requirement to benchmark against prices rather than costs will lead to a lower benchmark MTR than would be determined under the IPP. The Commission's approach therefore overestimates the economic benefits that will actually be generated by regulation under its own pricing principle. The only way the cost-benefit analysis can produce a valid estimate of the effects of regulation versus the undertakings is if the benchmarking is consistent with the IPP.

There are good reasons to set regulated prices above hypothetical cost estimates

140. Of the nine countries benchmarked against by the Commission, eight do not currently set a regulated price equal to the estimate produced by their own cost model (Malaysia is the only exception). Some regulators recognise that their cost models are subject to considerable risk of error and believe it appropriate to be cautious and set a price above their hypothetical cost estimate. The table below sets out the cost estimates generated by cost models, and the regulated price, for the countries that the Commission has benchmarked against. Mark-ups range from 0 to 170%.
141. The data show that using the actual regulated price rather than the cost estimate raises the median from 7.16cpm to 11.91cpm. Further, if the 75th percentile of the regulated prices is used the number climbs to 13.05cpm.

Country	Cost estimate	Regulated price	Per cent mark-up
France	4.83	13.05	170%
Malaysia	5.23	5.23	0%
Australia	6.54	10.14	55%
Sweden	6.96	8.14	17%
Israel	7.16	9.1	27%
Norway	9.53	11.91	25%
Netherlands	10.44	18.09	73%
Denmark	11.77	12.86	9%
UK	12.52	13.35	7%
Median	7.16	11.91	
Average	8.33	11.32	
75 th percentile	10.44	13.05	

142. Analysys Mason conclude that there are two reasons to mark up the outputs from a TSLRIC model when setting a cost based MTR:

[T]he possibility that model results are different from the actual service costs. Therefore, when the degree of confidence in the model results is limited, setting MTRs above the modelled costs would avoid situations where market players are negatively affected by under-recovery of costs.

[T]he possibility to allow for a gradual transition of MTRs, from the currently applicable prices to the cost level calculated by means of cost models, in order to avoid market distortions due to the abrupt decrease in prices.

143. Further, Analysys Mason concludes that the Commission should give careful consideration to these factors given the limitations of the benchmarking methodology that they employ.
144. Regulators set rates above their estimate of cost due to the serious negative consequences that would result from operators being held to a cost standard that is unachievable in practice. In their report, Analysys Mason discuss these issues and note in particular the importance of including costs associated with the transition from 2G to 3G technology.
145. To repeat, the Commission needs to assess the undertakings that are in front of it now *against this benchmarking analysis*. It must be done in a robust fashion or the Commission risks rejecting undertakings that could deliver immediate benefits to consumers, and in doing so risks wasting a substantial amount of time and money on cost modelling.

The ACCC rejected the cost that the Commission is using as a benchmark

146. The ACCC has explicitly recognised that its own cost model estimate is lower than what is achievable in the real world, and has consistently chosen to set a regulated price 1.5 times the cost estimate.⁴⁵ As we and Covec submitted, this is in part because the hypothetical cost models impose an unreasonable standard of optimisation for setting regulated prices.⁴⁶

147. The ACCC⁴⁷ states that:

... the ACCC is of the view that practical realities experienced by a hypothetical new entrant rolling out a new network warrant a conservative approach to setting an indicative price for supplying the MTAS. As such, the ACCC considers that the WIK model provides an estimate of the TSLRIC+ of supplying the MTAS somewhat lower than that achievable in reality.

148. The Commission has provided no explanation of why it thinks other regulators are wrong in this regard and why it is appropriate to ignore the ACCC's conclusion that the estimate produced by its own cost model is too low. For the Commission to use overseas cost estimates in ways more aggressive than the regulator who developed them gives us great cause for concern, especially considering the significant adverse effects associated with even a relatively small error. The Commission must justify why it persists in using a cost in its benchmarking analysis that is categorically rejected by the ACCC.

Analysys Mason and Covec find the French cost model estimate should be excluded

149. In their reports, both Analysys Mason and Covec note that the cost model developed in France was developed using a historic cost accounting (HCA) standard. Based on recent correspondence with the Commission,⁴⁸ it would appear that this would invalidate the French cost estimate from the Commission's benchmarking sample.

⁴⁵ Ibid, paragraph 130.

⁴⁶ Vodafone submission on amended undertakings, paragraph 127 – 132.

⁴⁷ ACCC, *Domestic Mobile Terminating Access Service Pricing Principles Determination and indicative prices for the period 1 January 2009 to 31 December 2011*, March 2009, at p. 18.

⁴⁸ Letter from Commerce Commission to Vodafone dated 22 July 2009, relating to *Investigation into Mobile Termination Access Services (MTAS): Benchmarking*

The Commission excludes other countries with regulated MTRs based on a cost model

150. In their report, Covec note that Hungary and Greece have both recently regulated MTRs on the basis of bottom-up LRIC models.⁴⁹ Using the Commission’s exchange rate methodology, Covec obtain cost benchmarks of NZ 10.28cpm for Greece and 11.04cpm for Hungary. Current regulated rates are NZ 16.33cpm and 15.68cpm respectively.
151. Covec note that the cost models include some historical cost information, however the Commission has indicated that this is acceptable for benchmarking.
152. The following table shows Covec’s revised benchmarking against cost model estimates and regulated MTRs. Including Greece and Hungary; adjusting the Australian cost estimate to reflect the ACCC’s decision that the estimate is too low; and excluding France on the basis of Analysys Mason’s advice results in a median of 10.21cpm and a 75th percentile of 10.89cpm.
153. As submitted by both Vodafone and Covec, the Commission must benchmark against regulated rates to be consistent with the IPP. The median of the regulated rates is 12.38cpm and the 75th percentile is 14.3cpm.

Country	Cost estimate (NZD cpm)	Regulated MTR (NZD cpm)
Australia	10.13	10.13
Austria	n/a	10.76
Denmark	11.77	12.83
Greece	10.28	16.33
Hungary	11.04	15.68
Israel	7.16	9.09
Malaysia	5.23	5.23
Netherlands	10.44	18.01
Norway	9.53	11.93
Spain	n/a	13.84
Sweden	6.96	8.12
UK	12.52	13.36
Median	10.21	12.38
75th Percentile	10.89	14.30

The Commission’s benchmarking of cost paths is deficient

154. The Commission assumes that the mobile termination cost decreases by 10% per annum based on the path of costs over time in Sweden’s cost model, and with reference to changes in

⁴⁹ Covec, *op. cit.*, para [45] – [48], at pp. 9 – 10.

cost between two years in Denmark. As Covec show in their report⁵⁰, changes in cost over time are available for other countries in the Commission's benchmarking set. Among all countries for which cost path information is available, the median change in cost is a 4.7% decrease per annum. Similarly Analysys Mason note the exclusion of available cost path information and state that they do not believe that the Commission would be in a position to recommend a 10% per annum reduction in MTAS if it had used this information.

155. To be consistent with its benchmarking of the level of the termination cost, the Commission must also use all information that is available to it to benchmark the change in cost over time. As shown by Covec in their report, this means using a 4.7% annual decrease, although when comparability and asymmetric risk are considered then a smaller decrease or an increase should be used. The upper quartile of the annual cost changes identified by Covec is a decrease of 1.5% per annum.
156. With reference to Israel and Malaysia, we cannot understand why the Commission chooses these countries as part of its benchmarking sample for the level of price, but rejects them from its sample for benchmarking the cost path.

The Commission's cross-checks on benchmarking are flawed

157. The Commission 'cross-checks' its benchmarking against an EC recommendation that the price of mobile termination be €2.5cpm (NZ 4.5cpm) by 2012. The Commission recognises that this does not include common costs, but fails to appreciate the magnitude of the common costs excluded by the EC. Covec discuss this in their report and note that the EC's own estimate of common costs is 25% (the Commission assumes 10%), and that the adjustment required to convert the EC price into New Zealand terms could be considerably higher once the costs of the coverage network are taken into account.⁵¹
158. Analysys Mason notes that the EC work is based on a different pricing principle—avoidable costs—than that proposed by the Commission—TSLRIC—and is therefore likely to generate far lower MTRs. Further, the cost model outputs used in the Commission's benchmarking are also based on TSLRIC. Analysys Mason⁵² concludes:

...we believe that the Commission's attempt to validate its proposed MTRs in New Zealand is methodologically incorrect. It erroneously puts on the same level the results of existing cost models in benchmark countries and an MTR target for 2012 that is

⁵⁰ Covec, *op. cit.*, para [9], p. 3.

⁵¹ Covec, *op. cit.*, para [56] at p. 11 -12.

⁵² Analysys Mason, *op. cit.*, para [39], p. 19.

purported to reflect the new EC Recommendation, using a LRIC costing approach that is significantly different from the currently applicable costing standards

159. Vodafone submits that if the benchmark costs are consistent with a completely different methodology, then there are obvious problems with the benchmark sample.
160. The Commission also attempts to compare its benchmarks with some on-net pricing plans of Vodafone and Telecom. Covec discusses this and conclude:⁵³

... using plan prices as a cross-check on mobile termination cost benchmarking is extremely difficult, as every bundle includes a number of different components (e.g. voice, text, data, and other services), and the mobile network will price on the basis of the value of the bundle as a whole to consumers (including expected termination revenue). This is further complicated by the fact that plans designed to attract closed user groups will be priced depending on the value of the group as a whole, and conducting the analysis at the level of an individual plan may therefore lead to erroneous conclusions about costs.

161. These cross checks therefore do not in any way increase our confidence in the Commission's estimate. Indeed, the EC cross-check suggests that the Commission has under-estimated the cost of termination in New Zealand.

The Commission's SMS benchmarking is woefully inadequate

162. The Commission benchmarks the cost of SMS termination in New Zealand on the basis of only two overseas cost estimates. While it uses the higher of the two estimates as the benchmark, the difference between the two is almost 500%. There is no way the Commission can be sure that these two values in any way represent the cost of SMS termination in New Zealand. The uncertainty associated with an estimate that is based on only two points that differ by five times is so extreme that the Commission cannot place any reliance on these benchmarks whatsoever.
163. This is all the more true because the countries the Commission has benchmarked against (Israel and Malaysia) are in no way comparable to New Zealand. Vodafone submits that the Commission simply cannot be sure of the cost of SMS termination in New Zealand on the basis of benchmarking, and therefore it cannot propose regulation of SMS termination. We are also deeply concerned that an initial pricing principle for SMS termination that required benchmarking would simply be unworkable.

⁵³ Covec, *op. cit.*, pars [61] – [62], at pp. 12 – 13.

Summary

164. In summary, Vodafone's views regarding the Commission's benchmarking are:

- the Commission must do its benchmarking as rigorously now as it would under the initial pricing principle. Failing to do so risks recommending unjustified regulation and delaying the benefits to end users that the undertakings will provide;
- the Commission must consider comparability when it develops its benchmarks. The Commission cannot ignore the independent advice it has from Analysys Mason, WIK, Covec and NERA, all of which clearly state that local conditions are very important in determining the cost of the MTAS and must be accounted for;
- that comparability is important is highlighted by the wide range of cost estimates in the Commission's benchmarks;
- to account for the risk of setting the termination rate too low, the Commission must choose a benchmark from the upper range of the benchmarks;
- the Commission must conduct its benchmarking in a manner that is consistent with the proposed IPP, and this requires benchmarking against regulated prices, not cost estimates, and taking account of comparability;
- other regulators, including the ACCC and France have noted good reasons to set regulated rates above the estimates produced by their cost models, and the Commission cannot ignore this fact;
- the Commission needs to explain why it believes it has better knowledge of the cost of mobile termination in Australia than the ACCC does;
- the Commission excludes Greece and Hungary from its benchmarks. These countries have also set regulated MTRs on the basis of bottom-up LRIC models and there is public information available from the respective national regulators;
- in contrast, the Commission has included France in its sample of benchmarks, despite Analysys Mason confirming that the regulatory model it developed for ARCEP is based on a HCA standard;

- the Commission ignores cost path estimates developed for Israel and Malaysia in its benchmarking of the change in mobile termination costs over time, despite including these two countries in its benchmarking of the level of costs;
- the Commission's cross-checks on its benchmarking are flawed. The comparison with the EC recommendation does not account for the EC's view about the cost estimation methodology. The comparison with on-net pricing is fraught with difficulties and cannot be used as a reliable benchmark; and
- the Commission's benchmarking of SMS is based on only two data points that differ by 500%. This provides no reliable information about the cost of SMS termination in New Zealand.

165. Vodafone's view is that an appropriate benchmark that is consistent with the IPP and takes account of comparability and the other issues identified above will lie with the upper range of the benchmarks of currently regulated prices. Based on the benchmarking conducted by Covec, this suggests a benchmark of between 14.3cpm and 18.0cpm.

C. The Commission over-estimates the extent to which reduced termination rates will promote competition and FTM pass through

166. The Commission correctly notes that “the extent to which the reduction in the wholesale MTR leads to a reduction in retail prices will depend on the level of cost pass-through”. The extent to which decreases in wholesale MTRs are carried through to retail prices of calls to mobile networks therefore determines the efficacy of any regulation of termination rates. For this reason, Vodafone continues to recommend non-regulated approaches to termination rates, where operators may guarantee to pass through changes in wholesale MTRs to consumers without any regulatory intervention.
167. The Commission’s preferred approach of designating mobile termination access services offers no such guarantee of pass-through to retail prices through decreasing wholesale MTRs. In the absence of such a guarantee, the Commission is forced to instead rely upon predictions, theoretical models and assumptions to forecast the degree to which lower wholesale MTRs will be passed through to retail prices, and therefore the degree to which consumers may benefit.
168. Vodafone believes that two of the assumptions made by the Commission regarding pass-through are flawed. The first of these is an assessment of the degree to which previous decreases in wholesale MTRs have been passed through to retail prices between 1997 and 2008. The Commission’s assessment shows that approximately 78% of wholesale MTR savings were reflected in decreases to the retail price of calls to mobile networks over this period. Vodafone’s concerns with this assumption are:
- including those rates of pass-through offered under the terms of Vodafone’s MTR Deed skews the Commission’s analysis of the extent to which pass-through will occur when such pass-through commitments are not in place (as would be the case under regulation); and
 - inadequate consideration has been given to how the pass-through of decreases in other costs of providing FTM calls, such as origination rates, transport and retail costs have also contributed to decreases in retail FTM prices.
169. On this basis, Vodafone believes that the historic level of pass-through is less than the rate that the Commission assumes.
170. The second of these assumptions is the Commission’s expectations of how a lower wholesale

MTR will encourage more competitive market conditions, which will increase the level of pass-through from historic rates of 75% to 100% of wholesale MTR rate changes by 2015. In this regard, Vodafone believes:

- the Commission has erred in assuming pass-through will start increasing under regulation from 2008, despite the Commission not being in a position to set regulated prices until 2011;
- it is unlikely that the factual scenario will create a market that is markedly more competitive than that which existed prior to any regulation; and
- other substantial barriers to market entry and expansion do and will still exist in the market within which FTM services are provided. These factors will continue to mean the market for fixed-line services is not perfectly competitive in the future irrespective of how low FTM termination rates are. These barriers to entry make it highly unlikely that the factual scenario will result in new market entry or in any other substantive change to market conditions in the fixed market compared to what has been historically observed.

171. Vodafone is also concerned that the Commission's estimates of both historic rates of pass-through and the anticipated rates under the factual are far removed from those that other regulators have anticipated or observed following similar regulation. This strongly suggests that the Commission is incorrect in its assumptions.

172. Finally, lower levels of pass-through essentially mean that rather than consumers benefiting, that instead there is a disproportionate transfer of producer surpluses from mobile operators to fixed operators.

173. Each of these points is expanded upon below.

Historic Levels of Pass-through

Including those rates of pass-through offered under the terms of Vodafone's MTR Deed skews the Commission's analysis

174. The Commission's estimate of the historic rate of pass-through forms the baseline for the Commission's estimate of future pass-through under the factual of regulation. In order for this baseline to be comparable to the market conditions under the factual, the Commission rightly excludes the rate of pass-through achieved in 2008; as such rates of pass-through were a result of Vodafone's commitments under the Deed rather than market forces alone.

175. Vodafone believes that as the Deed took effect in April 2007, the Commission should also exclude the results for 2007. Excluding 2007 as well as 2008 from the historic analysis means that 74% is a more reasonable assessment of the historic rate of pass-through under the Commission's methodology.

Inadequate consideration has been given to how the pass-through of decreases in other costs of providing FTM calls, such as origination rates, transport and retail costs has also decreased retail FTM prices

176. The Commission's modelling assumes that decreases in wholesale MTRs are the only determinant of decreases in retail FTM prices since 1997.

177. Vodafone believes that such an assumption is unwarranted, and that the Commission should also take into account the changes in the other cost factors of a retail FTM call. The changes in the cost of call origination, transport and retailing between 1997 and 2006 should also be considered, providing an estimate of how the total cost base of an FTM call has changed; and therefore allow a more accurate assessment of the degree to which changes in costs have been passed through to retail prices during this period.

178. In principle, fixed-line operators should be largely indifferent to where their cost savings come from. Therefore, the extent to which they are likely to pass-through reductions in FTM termination rates should largely mirror the extent to which they have passed-through all cost reductions over time.

179. This issue is discussed in the report provided by Covec, who find that historical rates of pass through prior to the Deeds are more likely to have been at around 41 per cent. We believe this represents a more reasonable baseline estimate from which to consider the extent of pass-through without formal commitments by carriers to pass-through reduced FTM termination rates in full.

Likelihood of Increased Rate of Pass-through under the Factual

Any increase in pass-through under the factual is unlikely to occur until after regulation

180. In Table 41 of the Draft Report, the Commission outlines its expectations regarding how pass-through will increase between 2008 and 2015. In doing so, the Commission appears to have "straight-lined" the rate of change between 2008 and 2015, attributing increases in the rate of pass-through in a linear fashion.

181. Vodafone has two concerns with this assumption. First, the Commission assumes that pass-

through will start to increase under the factual of regulation from 2008, even though it separately states that regulation cannot occur until 2011. This seems to assume that the rate of pass-through must be increasing under the MTR Deeds prior to regulation “kicking-in” in 2011. This seems confused, however, as pass-through is guaranteed to be 100 per cent under the MTR Deeds, at least until designation which is unlikely occur until 2010. We believe pass-through under regulation is likely to revert back to 41 per cent under regulation from 2011. To the extent that regulation might lead to a faster rate of pass-through over time, we believe the rate of pass-through should start to increase from 41 per cent from 2011.

182. Second, the Commission assumes that pass-through will not increase over time as termination rates come down under the counter-factual set out in the FTM undertakings put forward by Vodafone and Telecom. That is, it assumes pass-through will remain constant at 88 per cent under all years of the counter-factual. This seems inconsistent with the Commission’s analysis in that it assumes that in the past, decreases in termination rates have naturally led to an increasing rate of pass-through over time, even though these rates themselves weren’t regulated in the past. We do not believe the evidence supports a view that pass-through has increased over time as a result of decreased FTM termination rates over time (there are other factors that are likely to have also influenced the costs faced by fixed-line operators when providing FTM calls that are not accounted for in the Commission’s analysis). For consistency, however, if the Commission is to hold to the theory that reductions in termination rates lead to gradual increases in pass-through over time, the Commission must also reflect this in its assessment of the levels of pass-through under the counter-factual scenario. Covec also comment on this point in its submission.

It is unlikely that the factual of regulation will create a market that is markedly more competitive than that which existed prior to regulation

183. Vodafone simply does not believe that further reductions in FTM termination rate are likely to naturally lead to large increases in the rate of pass-through under regulation in the future. During the period from 1997 to 2006, Covec estimates pass-through is likely to have been at around 41 per cent in New Zealand. It is certainly not likely to have been as high as the Commission suggests, as other factors are likely to have led to cost reductions for fixed-line operators other than FTM termination rates (as discussed above). Yet over this period, termination rates roughly halved (from 50cpm in 1997 to 25.96cpm in 2006).
184. Going forward, the Commission expects that halving FTM termination rates from current levels of around 15cpm to 7.2cpm will be likely to achieve what halving pass-through rates failed to achieve in the past.

185. In reaching this view, it would appear that the Commission believes that FTM termination is such an important driver of competition in the fixed-line market that if the prices of termination were to halve, a substantial improvement in competitive competition will ensue.
186. The reality, however, is that FTM termination rates are becoming an increasingly small part of the overall costs a fixed-line operators faces when competing in the fixed-line market. Fixed-line service providers don't just compete to provide FTM and toll calls. Now competition tends to occur over a broader suite of services, including basic access, local calling and dial-up or broadband internet services. In that sense, the market within which FTM calls are provided is now significantly broader than it would have been back in 1996. This is clearly evident from a cursory examination of household bills – these days, the amount spent by consumers on FTM calls is a relatively small fraction of the overall price paid by households for their package of fixed-line services.
187. Given this, a halving of FTM termination rates is unlikely to generate a substantial decrease in the input costs faced by fixed-line operators relative to their overall costs of providing fixed-line services. For this reason, it is hard to see how further decreases in FTM termination rates are likely to make a large difference to the state of competition in the fixed-line market – they are hardly likely to be the straw that breaks the camel's back and suddenly unlock perfect competition in the fixed line market in New Zealand.

Overseas evidence does not support predictions of 100 per cent pass-through under regulation

188. The Commission's theory in relation to the extent to which pass-through will increase to 100 per cent as rates get closer to its estimates of cost seems eerily reminiscent of the theory put forward by the ACCC in 2004 when arguing that reductions in FTM termination rates to cost should lead to levels of pass-through growing to 100 per cent and beyond over time. At the time, the ACCC⁵⁴ argued that:

... over the longer term, reducing MTAS prices should improve competition in the market within which FTM services are provided, leading to a closer association of FTM prices with their underlying cost of provision. Given the price of FTM services appears to be further above cost in absolute terms than the price of the MTAS, this would mean the price of FTM calls may fall by more than the cost over [sic] the MTAS in the long term.

189. This can be contrasted with the actual levels of pass-through that have occurred under five years of regulation in Australia. Despite its confidence about the level of pass-through that

⁵⁴ ACCC, *Final decision on whether or not the Commission should extend, vary or revoke its existing declaration of the mobile terminating access service*, June 2004, at p. 123.

would occur once it embarked down the path of regulation in 2004, the ACCC⁵⁵ was forced to concede earlier this year that:

"... the ACCC is disappointed it appears there has been no significant reduction in [Australian] FTM prices has emerged (sic) despite earlier expectations...Indeed, the Commission has observed an increase in Telstra's residential FTM retail prices since 2007.

...

The Commission considers that the approach adopted in New Zealand may also be appropriate. In New Zealand any reduction in mobile termination rates by any MNO is required to be passed through to fixed customers in full under voluntary deeds made between MNOs and the New Zealand Government."

190. Clearly, the ACCC is still waiting for the levels of pass through to reach 100 per cent.
191. The Commission needs to take a reality check with its assumptions about future pass-through. Evidence from overseas suggests that pass-through has been well below 100 per cent under regulation. In this regard, Vodafone notes that in its Draft Report, the Commission observes that the EC estimates pass-through as being 20% (though the Commission feels that 50% is a more realistic assessment given other data provided by the EC) and that OfCom observes 64% pass-through. We have also consistently provided evidence to show pass-through in Australia has struggled at around 25 per cent. These are jurisdictions that have a long history of regulating FTM termination rates. Empirical observations of pass-through from these jurisdictions form a much better guide to likely pass-through under regulation than hopeful theories based on possible speculation.

Fixed operators have profited greatly from past reductions in FTM termination rates

192. The Commission's own analysis of the 1997-2008 period shows that one impact of decreasing mobile termination prices has been the marked increase of the margins between wholesale MTRs and retail FTM prices. Vodafone finds this particularly galling. For years we have been pressured into reducing FTM termination rates in order to provide benefits to consumers. While we have resisted large decreases in mobile termination rates in the past, we have consistently reduced FTM termination rates without the need to resort to regulatory intervention. Such reductions have large effects on our business revenues, and limit the

⁵⁵ ACCC, *Draft MTAS Pricing Principles Determination and indicative prices for the period 1 January 2009 to 31 December 2011*, November 2008, pps. 18 – 19.

extent to which we can reduce retail prices for retail mobile services due to waterbed effect considerations.

193. Such costs should only be imposed on our business (and indeed on mobile phone users) when there is a clear guarantee that fixed-line consumers will benefit in full from these reductions in our revenues. It is intolerable if some of these reductions are not being passed-through to consumers, but are instead being used to line the pockets of other telecommunications service providers.
194. Accordingly, it is greatly concerning to observe, based on the Commission's own analysis, that reductions in FTM termination rates prior to the MTR Deeds served to **increase** the margins enjoyed by fixed-line operators. This is clear from table 40 of the Commission's draft report, which shows that the margin above FTM termination enjoyed by providers of fixed-line services rose from 6.52cpm in 1997 to 13.96cpm in 2008.
195. Of more concern, the Commission actually predicts this level of margin will **increase further** if it starts regulating FTM termination rates and over-turns the MTR Deeds (and the 100 per cent pass through commitment contained within them). That is, under the Commission's modelling, a reduction in FTM termination rates to 3.8cpm by 2015 will serve to increase the margin enjoyed by providers of FTM calls a further 13.6 per cent to 15.86cpm. Indeed, by the time the Commission finishes regulating the service in 2015, the projected price of a FTM call will be 19.66cpm, of which:
- 3.8cpm will represent the FTM termination rate;
 - 3.96cpm will represent the non-termination costs of providing FTM calls; and
 - the remaining 11.9cpm (or 60.5 per cent) will be pure margin!
196. Vodafone is staggered that the Commission believes this is a fair and reasonable outcome. How can regulation be contemplated in circumstances when it will serve to redistribute large amounts of producer surplus between telecommunications carriers? To create regulation that actually is expected to increase the margins of FTM call providers to over 60 per cent seems daft.

D. The Commission has under-estimated the harm for mobile consumers from reductions in FTM termination rates

197. The Commission recognises that regulation of the MTAS will cause significant economic detriments in the retail mobile market as a result of the waterbed effect. Under the Commission's assumptions, regulation reduces FTM termination revenues of mobile operators by between \$281m and \$342m in NPV terms over five years. If FTM volumes remain at the 2008 level, the losses are \$300m in NPV terms. It is not credible to assume mobile operators will not respond to such a large change in revenues in some way.
198. In practice, a variety of responses by mobile operators are possible:
- retail mobile prices rise, or fall more slowly than they otherwise would;
 - mobile pricing and bundles are restructured to increase revenues;
 - prepay customers may be disconnected if they are not topped up frequently enough, and/or the minimum top-up amounts increased;
 - prepay credit could expire after a shorter period of time than it otherwise would;
 - the extent of handset subsidies could be reduced, or firms forced to SIM-lock subsidised handsets to ensure they are able to retain subsidies provided;
 - investment is reduced or delayed;
 - innovative new services are not introduced or are delayed.
199. The larger and more sudden are any reductions in termination revenues, the more significant these effects are likely to be.
200. All of these responses will result in economic detriments in the mobile market. The Commission models the waterbed effect as an overall increase in mobile prices (measured by ARPU). This is reasonable in the context of the cost-benefit model, but in reality any (or all) of the range of responses outlined above is possible. It is therefore important to remember that the waterbed effect as the Commission models it is only a proxy for many different possible responses of mobile operators to the changed incentives that they face under regulation. Vodafone also believes that the Commission significantly underestimates the size of the waterbed effect.

Evidence in the academic literature points to a strong waterbed effect

201. The Commission assumes the waterbed effect will be relatively small, with mobile operators absorbing most of the reduction in termination revenues caused by regulation. This is contrary to the evidence in the academic literature.
202. That a waterbed effect will exist for FTM and MTM termination is established by Armstrong and Wright (2009).⁵⁶ Armstrong and Wright show that a reduction in the FTM or MTM termination rate will lead to an increase in retail mobile prices due to the profit-maximising behaviour of competing mobile operators. Empirical evidence for a relatively strong waterbed effect is provided by Genakos and Valletti (2008)⁵⁷ and Andersson and Hansen (2009)⁵⁸. A recent empirical study undertaken by CEG for Ofcom also showed there is evidence of a link between the level of the MTR and mobile penetration.⁵⁹
203. The theoretical and empirical work referenced above points to the waterbed effect being strong but not complete. There is no evidence that the waterbed effect will be weaker than in the Commission's previous investigation, and indeed the increase in penetration since that time will have increased that effect.
204. As noted above, the increasing level of competition in the New Zealand mobile market also points to a stronger waterbed effect compared to the previous investigation.
205. As Covec demonstrate in their report, increasing the size of the waterbed effect to 75 per cent and fixing the Commission's error in calculation of ARPU under the factual means there is no justification for regulation, even if all the Commission's other assumptions are unchanged.

There is an error in the Commission's waterbed calculations

206. The Commission assumes that mobile operators will adjust their mobile prices to 'recover' between 0 and 50 per cent of the termination revenues that are lost due to regulation. As Covec demonstrate in its report⁶⁰, the Commission's calculation of the increase in ARPU contains a significant error in that it does not allow for the elasticity of mobile subscription demand. The required increase in ARPU is therefore greater than the Commission has calculated. Covec show that, for example, the actual revenue recovered is not 50 per cent as

⁵⁶ "Mobile Call Termination", *Economic Journal*, 119: 270-307.

⁵⁷ "Testing the 'Waterbed' Effect in Mobile Telephony", Mimeo, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1114856.

⁵⁸ "Network competition: Empirical evidence on mobile termination rates and profitability", Mimeo, available at <http://home.bi.no/a0510011/Papers/Andersson%20and%20Hansen%20MTR%20and%20Pi%20April%202009.pdf>

⁵⁹ Competition Economists LLP, "Wholesale Termination Regime, Termination Charge Levels and Mobile Industry Performance: A study undertaken for Ofcom", 20 April 2009, available at <http://www.ofcom.org.uk/consult/condocs/mobilecallterm/annex6.pdf>.

⁶⁰ Covec, *op. cit.*, para [146] at p. 31.

assumed by the Commission, but around 36 per cent in 2011. Correcting this error alone eliminates roughly half of the Commission's estimated net benefits of regulation.

207. Again, we emphasise that while the Commission's model predicts a reduction in mobile subscribers as a result of the waterbed effect, the Commission's waterbed model is simplistic and does not capture the full range of responses that mobile operators may take. It is therefore not necessarily the case that the waterbed effect will be small if mobile subscription demand is relatively inelastic.

There is also a waterbed effect associated with MTM termination regulation

208. Regulating the MTM termination rate will also generate a waterbed effect as the intensity of competition between mobile operators is reduced. This is explained by Covec in its report⁶¹. To the extent that mobile consumers do care about the size of the network as a whole (rather than which network the people they call frequently belong to), a lower MTM termination rate reduces the incentives of mobile networks to increase their size, and therefore causes them to compete less intensely with each other—so they will subsidise handsets less, cut prices more slowly, and so on. The Commission overlooks this effect and therefore underestimates the total size of the waterbed effect.

The waterbed effect does not diminish when penetration increases

209. The Commission believes that the waterbed effect will be weaker when penetration is higher, and because penetration is high in New Zealand the waterbed effect should be small. Covec explain why this is not true⁶² – when penetration is high then competition between networks is at its most intense. This leads to a larger waterbed effect, not a smaller one. The intuition is simple: higher penetration means a more competitive market because the only way a network can gain subscribers is by competing them away from their rivals. The more competitive the market, the greater the rate at which reductions in termination revenue will be passed through to mobile consumers, so the more retail mobile prices will face upward pressure.
210. That competition in the New Zealand mobile market has intensified in recent years is illustrated by the significant reductions in mobile prices and increases in volumes as shown by the data that we have provided to the Commission. In addition, the emergence of MVNOs and resale arrangements; the entry of 2degrees; and Telecom's deployment of a GSM network have all made the market more competitive.

⁶¹ Covec, *op. cit.*, para [125] at pp. 27

⁶² Covec, *op. cit.*, para [137] at pp. 29 – 30.

211. The Commission is therefore wrong to assume that the waterbed effect will be smaller than in the previous investigation due to the increase in penetration over the past few years. In addition, penetration in 2006 was 91% and the Commission now estimates it to be 106%. Even if the waterbed effect did diminish as penetration increases, it is not plausible that this relatively small increase in penetration would cause the waterbed effect to be much smaller.

The effects will be unevenly distributed across mobile consumers

212. Termination is an important source of revenue for mobile networks from customers who do not make many outgoing calls. Regulation will disproportionately reduce the incentive to compete for these customers, and the waterbed effect will be felt most strongly by low users.

213. The Commission correctly recognises that a move to BAK will have significant adverse effects on prepay customers. In fact, this is true for any form of termination regulation. The Commission has not considered how regulation will impact different groups in the mobile market in different ways. If it is concerned about the welfare of low users and how these would be affected by a move to BAK, it must also have the same concerns regarding the waterbed effect.

214. In addition, as penetration increases, the marginal subscribers are relatively low users of mobile services (otherwise they would have joined earlier). Since the waterbed effects will be strongest for these types of user, the waterbed effect will increase as penetration increases.

The Commission's analysis of the waterbed effect from NZ mobile market data is feeble

215. The Draft Report contains some empirical analysis of mobile market prices and MTRs over the past few years, which the Commission uses to conclude that the waterbed effect is likely to be small.

216. At the outset, it is important to recognise that mobile operators may adjust to reduced termination revenues in ways that generate detriments to mobile consumers in a range of ways other than simply increases in retail mobile prices. These were discussed in paragraph 198 above. To merely look at trends in retail prices in recent years and seek to draw inferences of the waterbed effect on the basis of these observations ignores the many other ways in which consumers may be made worse off by reductions in mobile termination rates.

217. In addition, in the past the MTR has generally reduced gradually over time. We have not observed the type of sudden decrease that the Commission is proposing under regulation. With a gradual decrease in the MTR, operators have time to adjust and the detriments created by the waterbed effect will be less severe. It is not possible to make inferences about the size

of the waterbed effect under the type of regulation proposed by the Commission simply by looking at what has happened in the past when the MTR was reducing more slowly.

218. Determinants of mobile market prices are highly complex. In order to isolate the waterbed effect from other factors that have affected retail mobile prices over this past few years, it would be necessary to have a comprehensive model of retail mobile pricing and to control for other drivers of prices. Simple casual observation as the Commission has done will reveal nothing about the extent to which MTRs have affected mobile prices.
219. It is simply inconceivable to think that analysis of a few years of data without using a model or econometric techniques can reveal anything about the waterbed effect. Authors who have attempted this in the academic literature have used sophisticated models and much richer datasets⁶³. Even with those tools, it is difficult to isolate the waterbed effect. We do not believe that the Commission's conclusions about the size of the waterbed effect based on its casual analysis of the New Zealand data can be given any weight whatsoever.
220. We also note that handset subsidies are only offered to postpay customers on term contracts. These are the type of customers that make relatively many calls, and termination revenue is a less important factor in determining the profitability of providing them with service. In contrast, termination revenues are more important for customers who do not receive handset subsidies and the waterbed effect will be felt more strongly by them. It is therefore not possible to estimate the overall size of the waterbed effect by looking at handset subsidies.

The Commission's assumptions about the waterbed effect are inconsistent with its own conclusions

221. The Commission assumes that the waterbed effect does not increase over time in its cost-benefit model and is the same in the counterfactual and factual. However, it also believes that regulating MTRs will increase competition in the mobile market and the size of the waterbed effect depends on the intensity of competition. It is obvious that not all of these things can be true. As discussed elsewhere in this submission, Vodafone does not believe that regulation will promote competition in the mobile market. However, to be consistent with its conclusions, the Commission itself must assume that the waterbed effect increases over time, and that it is greater in the factual than in the counterfactual.

Regulation creates significant detriments for mobile consumers, which is not consistent with the Telecommunications Act

⁶³ See for example Genakos and Valletti (2008), "Testing the 'Waterbed' Effect in Mobile Telephony", Mimeo, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1114856.

222. One of the main effects of regulation is to generate large transfers of welfare between consumer groups. Covec calculate that under the Commission's assumptions, regulation transfers \$159m of economic benefits away from mobile consumers.
223. In contrast, the Commission's objective under the Telecommunications Act is to promote competition for the long-term benefit of end-users. It is unlikely that this extends to include regulation that makes some consumers significantly worse off in order to benefit other consumers. While many end-users will use both FTM and mobile services, not everyone will use these two services in the same way. People who use mobile services more intensively will be made worse off by the proposed regulation. This is inconsistent with the purpose of regulation under the Telecommunications Act.

E. The Commission must include a glide path in its modelling of FTM termination rate reductions

224. Vodafone has at a number of points during this investigation indicated the desirability of including a glide path for any reductions in mobile termination rates over time.⁶⁴ Vodafone has submitted that massive and sudden decreases in termination rates will create serious negative impacts both on existing retail pricing plans for mobile consumers and future investment plans for mobile operators. In this section of our submission, Vodafone provides further evidence to show how large and sudden decreases in MTRs can generate undesirable consequences for consumers, as well as causing significant disruption to the business plans of mobile operators and significant long-term damage to investment incentives and the ability of firms to recover their previously incurred costs.
225. Vodafone notes that these arguments have long been recognised by regulatory authorities in a number of international jurisdictions. These regulatory authorities have typically applied cost-based MTRs that decline gradually over a number of years to the underlying MTAS cost, by means of glide paths. Regulators have typically followed this approach in order to avoid sudden, distorting effects on the market. This is clearly noted in the attached report by Analysys Mason, which surveys arguments presented by regulatory authorities from the European Union, United Kingdom, France, the Netherlands, Spain, Hungary and Australia for applying MTRs that are above their estimates of underlying MTAS costs.⁶⁵ In particular, Ofcom notes that:
- ... a balance must be achieved between serving the short term welfare of customers (through lower prices and hence immediate reductions of prices to a level consistent with the underlying costs), and conversely the need for efficient investment incentives for existing and prospective network operators and service providers by allowing a sufficient period of time for operators and customers to adjust to new levels and structures of mobile charges (which benefit consumers in the longer term).⁶⁶*
226. Given the Act requires focus on the long-term benefits of end-users, we would submit that the Commission should include a glide path in its regulatory model in order to better meet the section 18 purpose of the Act.

⁶⁴ For example, see Vodafone's submission on the Mobile Termination Issues Paper (September 2008), responses to consultation questions paragraphs 58-60 and 103-104, and Vodafone's submission in response to Commission comments on MTAS Undertakings (May 2009), paragraphs 24-37, 164-184 and 203-207.

⁶⁵ Analysys Mason, *op. cit.*, pp. 12 – 13.

⁶⁶ Ofcom, *Call termination Statement*, 27 March 2007.

227. Also of particular interest are the views expressed by the ACCC. In this regard, Vodafone notes that, in the *MTAS Pricing Principles Determination*,⁶⁷ the ACCC adopted an adjustment path over 30 months to effect a gradual adjustment of the MTAS price from above 21cpm at 1 July 2004 to a price of 12cpm by 1 January 2007. The reason as set out in the MTAS Final Report was:⁶⁸

... that an immediate and significant reduction would give mobile operators little time to adjust their business plans in response ... [The] Commission considers that this period allows sufficient time for MNOs to unwind or realise their business decisions made in reliance on the previous regulatory approach...

228. The ACCC's primary concerns were:⁶⁹

- regulatory certainty, particularly as some access providers have developed business plans around existing pricing structures and the previous retail benchmarking pricing principle;⁷⁰
- balancing MNOs' ability to recover reasonable costs (inclusive of a normal profit); and
- the impact that a fall in the price of MTAS may have on existing pricing plans for mobile services.

229. These arguments are even more relevant when there is significant uncertainty with regard to cost estimates in a particular jurisdiction. Countries that have relied on cost models to estimate their costs of providing mobile termination will often set prices above these rates to reflect the risks to them of making errors in their cost estimation. This approach has been taken by regulatory authorities in a number of overseas jurisdictions, including by the ARCEP in France and by the ACCC in Australia.

Regulatory authority	Position on the definition of MTRs above the underlying MTAS costs
ARCEP (France)	"In particular, the estimate of cost levels, while dependable, nonetheless uses range relatively wide and over time must be gradually adjusted to take into account a more

⁶⁷ Ibid.

⁶⁸ Ibid, pp. 220-221.

⁶⁹ Ibid, p. 216.

⁷⁰ Ibid.

⁷¹ ARCEP, *Décision n° 08-1176 de l'Autorité de régulation des communications électroniques et des postes en date du 2 décembre 2008 portant définition de l'encadrement tarifaire des prestations de terminaison d'appel vocal mobile des*

	precise target as the tariffs converge with the reference incremental costs." ⁷¹
ACCC (Australia)	"the ACCC considers that the WIK model provides an estimate of the TSLRIC+ of supplying the MTAS somewhat lower than that achievable in reality." ⁷²

230. These considerations taken into account by the French and Australian regulatory authorities should be carefully considered by the Commission, in light of the limitations of the benchmarking approach (discussed earlier in this submission). Vodafone further submits that the advantage of a glide path is it also gives a regulator time to refine its estimation of costs to account for these risks.
231. Vodafone notes that the Commission has indicated that it would consider a glide path as an implementation issue if it were to regulate the service. We see this as a positive sign. Despite this, it has not sought to account for this in its modelling of rates that would be likely to apply under the factual of regulation. Instead, it has indicated it will be considered as an implementation issue at the time. We believe the Commission's analysis of the factual in its cost benefit model must be modified to adjust for this consideration now. It is not enough to say this is a matter that will be considered as an implementation issue in 2011, but not modelled now when deciding whether to accept an undertaking. To not account for a glide path in the factual of regulation would lead to significantly greater reductions in prices than might otherwise be the case if a glide path were to occur. This would greatly change the results of the model in terms of comparing the undertakings to the factual of regulation. Indeed, if a 3-year linear glide path of prices to underlying cost by 2014 were to be assumed rather than an immediate drop in price to cost in 2011, the size of the Commission's estimate of the net consumer impacts from regulation would decrease to between \$39.3 million and \$48.5 million if nothing else in the Commission's model were changed other than the correction for the error in the estimation of the waterbed effect.
232. Also, despite the Commission's view that a glide path approach to pricing should be considered as an implementation issue, Vodafone has concerns regarding whether the Commission could in fact consider a glide path approach to pricing under the Final Pricing Principle (**FPP**) as it is currently drafted. Vodafone is concerned that the current drafting of the FPP – which refers to TSLRIC, pure bill and keep and hybrid bill and keep – risks not

opérateurs Orange France, SFR et Bouygues Telecom pour la période du 1er juillet 2009 au 31 décembre 2010, 2 December 2008 (quoted text is a translation of the original text in French). As a result of this consideration, ARCEP decided to set a glide-path with MTRs declining in 2010 at levels (EUR0.03-0.04/min, depending on the operator) that are well above the modelled MTAS costs (EUR0.024-0.029/min).

⁷² ACCC, *Domestic Mobile Terminating Access Service Pricing Principles Determination and indicative prices for the period 1 January 2009 to 31 December 2011*, 19 March 2009. As a result of this consideration, ACCC decided to set a price (of AUD0.09/min) that is well above the modelled MTAS cost (AUD0.058/min).

providing the Commission with the required flexibility to consider glide paths as an implementation issue. Vodafone believes that this risk requires the Commission to consider the issue of glide paths as a part of this determination now, rather than as an implementation issue only after the service has become designated.

233. In order to ensure that the Commission is entitled to consider the issue of glide paths as an implementation issue, Vodafone believes that glide paths should be expressly referred to as part of the FPP.

234. Vodafone believes that where significant decreases in mobile termination rates are to occur, these should be staged over a number of periods to minimise the detrimental effects that severe and sudden decreases in FTM termination rates can cause. At a minimum, Vodafone believes reductions in price to cost should occur over a period of at least 3 years.

F. The Commission's cost-benefit model demonstrates the undertakings should be accepted over regulation

235. Vodafone has asked Covec to review the Commission's cost-benefit analysis of regulation. Covec's report is attached to this submission and it identifies a number of errors in the Commission's analysis. As well as modelling errors, Covec demonstrates that the Commission has used assumptions that are not supported by the available empirical evidence, and that the Commission's benchmarking is flawed. Covec's overall conclusion is that accepting the undertakings will generate significant economic benefits relative to regulation. Vodafone agrees with Covec's analysis and its findings.
236. Vodafone submits that the Commission must amend some of the assumptions used in its cost-benefit analysis to reflect the evidence that has been presented to it. As we have explained in this submission, for the cost-benefit analysis to be credible, it must be changed in the following ways:
- *A reasonable estimate of the cost of termination in New Zealand must be used* - The Commission fails to consider comparability and therefore underestimates the cost of termination in New Zealand. The importance of comparability is clearly demonstrated in the reports by Analysys Mason and Covec. The Commission's benchmark is also subject to considerable uncertainty and is inconsistent with the proposed IPP. Vodafone submits that a reasonable benchmark for use in the cost-benefit analysis is the 75th percentile of currently regulated prices, or 14.3cpm.⁷³
 - *A reasonable estimate of the change in the cost of termination over time must be used* - When benchmarking the change in termination cost over time, the Commission omits benchmarks that it considers relevant for determining the level of the cost of termination. Across all countries for which information is available, the median annual change is -4.7%.⁷⁴
 - *The FTM pass-through assumptions are too optimistic* - The evidence we have provided in this submission and the econometric analysis by Covec shows that the Commission's assumptions about pass-through in the factual are too optimistic. Without the very high levels of pass-through assumed by the Commission, regulation will not generate any benefits for consumers in the FTM market, and will

⁷³ Covec, *op. cit.*, Table 1, p. 2.

⁷⁴ Covec, *op. cit.*, Table 6, p. 15.

only serve to benefit fixed-line firms. The pass-through obligations in Vodafone's undertakings mean that greater benefits can be delivered to end users, which is what ultimately matters. Vodafone's view is that an appropriate assumption for FTM pass-through under regulation is 41 per cent.

- *The waterbed effect has been underestimated* - Covec shows that the Commission has underestimated the detriments the waterbed effect will create due to errors in the Commission's model and because the Commission does not properly understand the drivers of the waterbed effect. Regulation will therefore create greater economic detriments in the retail mobile market than the Commission has estimated. Vodafone submits that an appropriate value for the mobile pass-through parameter in the Commission's cost-benefit model is 75 per cent. The Commission's model must also be amended so that the assumed rate of revenue recovery under the waterbed effect actually occurs in the model, as explained in Covec's report.⁷⁵
- *The factual scenario must include a glidepath* - There are good reasons why regulation must include a glidepath, not least of which is that it will minimise the adverse effects on mobile consumers, particularly low-spending prepay customers. The Commission must include a glidepath in its assessment of whether to recommend regulation, and Vodafone's view is that an appropriate glidepath is a transition from regulated prices to cost estimates over a period of at least three years.

237. Once all these factors are taken into account in the cost-benefit analysis, the existing undertakings generate significant economic benefits for end-users over regulation, and the Commission should recommend that the undertakings be accepted.

238. Using Covec's modified cost-benefit model and changing the assumptions in the ways described above, the undertakings generate consumer welfare benefits compared to regulation of between \$47.8 million and \$50.5 million and total welfare benefits of between \$17.9 million and \$20.5 million in NPV terms.

⁷⁵ Covec, *op. cit.*, para [153] at p. 33.

MTM Voice termination

A. Introduction

The Commission's draft views

239. In the Draft Report, the Commission reaches a number of conclusions that suggest it believes the retail market for mobile services in New Zealand is not effectively competitive at this point in time. While it acknowledges the expected deployment of a third mobile network in New Zealand in the near future, it notes:

- the high level of concentration in the retail mobile market compared with other countries;
- some observations that lead it to believe there are high retail prices and low levels of usage in New Zealand compared to the rest of the world, particularly for voice services; and
- that retail prices for on-net services have generally been significantly lower than for off-net services between mobile networks.

240. Within this context, the Commission believes that the entry of a third mobile network operator will add competitive intensity into the retail mobile market in New Zealand, with consequential benefits for consumers. In this regard, it notes that the efficient entry and expansion of a third mobile network could potentially have significant effects, such as:

- an estimate of an annual gain to consumers of \$42.6 million if there was a 5 per cent price effect arising from new entry; and
- cost savings for consumers who no longer need to maintain multiple handsets in order to avoid paying relatively high off-net call prices.⁷⁶

241. Critical to the Commission's analysis of whether to recommend regulation of MTM voice termination services is a belief that the current price of MTM voice termination services acts as a barrier to efficient entry and expansion in the retail mobile services market. In this regard, it would appear to believe that if MTM termination rates lie above the underlying cost of providing the service, then existing mobile operators with large market shares would have a significant cost advantage over a new entrant when seeking to provide calls to consumers on their own networks. For instance, if the price of MTM termination on an existing operator's

⁷⁶ Commerce Commission, Draft Report, para [xlvi] at p. 18.

network was 15cpm, but the cost was only 7cpm, the existing mobile operator would enjoy a cost advantage of 8cpm for every call made to consumers on its own network over its rivals. By implication, the Commission would appear to think this enables the mobile operator to offer heavily discounted on-net pricing plans for calls to its own customers that a new entrant could not profitably match with its own off-net call prices for calls to the existing operators' customers. In turn, the Commission thinks this will make it hard for a new entrant to lure consumers away from the existing operator's network to its own network once it enters the market.

242. Given the Commission believes the prices for MTM voice termination provided in the undertakings by Vodafone and Telecom lie well in excess of its estimates of the TSLRIC+ of providing voice termination in New Zealand, the Commission's draft view is that these undertakings should not be accepted. Instead, its draft view is that the service should be regulated.

Overview of Vodafone's response to the Commission's draft views

243. The Commission's draft view relies heavily on three key assumptions:

- one, that the cost of MTM voice termination lies well in excess of the cost of providing the service;
- two, that immediately reducing the price of MTM termination to cost for a new entrant will remove a significant barrier to new entry into the market; and
- three, that such new entry will generate a substantial improvement to competitive pressures in the retail mobile market that will generate significant benefits to consumers that outweigh any corresponding detriments that may result from immediate and substantial decreases in the price of MTM termination.

244. Vodafone does not agree that any of these assumptions are supported by the conditions that exist here in New Zealand.

The Commission's analysis of the cost of MTM termination is flawed and unreliable

245. As indicated in detail in our submissions in response to the Commission's draft views on FTM termination, Vodafone believes the Commission has taken a reckless and dangerous approach to estimating the cost of mobile termination in New Zealand. Its "finger in the air" approach to estimating the cost of mobile termination in New Zealand is without a firm evidentiary basis, and is inconsistent both with its own draft pricing principles for the service and previous

approaches it has taken to estimate the cost of this and other regulated services in New Zealand. The approach adopted by the Commission has already been criticised in submissions by both Vodafone and Telecom; and has been criticised in detail by both Covec and NERA. Now, Analysys – the cost modelling firm that has been involved in constructing seven of the nine cost models against which the Commission benchmarks its cost estimates – has also indicated it believes the Commission’s cost benchmarking analysis is flawed.

246. If the Commission continues to use its existing benchmarking approach, it should make a number of adjustments that we believe suggest a reasonable estimate of the cost of providing voice termination in New Zealand is in the order of 14.3cpm.
247. Given we have addressed these concerns in detail in our response to the Commission’s findings on FTM termination, we do not intend to repeat these points in detail again in this section of our submission. However, it is sufficient to note that there is no compelling evidence to suggest the cost of MTM voice termination in New Zealand is substantially below the prices contained in our undertaking.

2degrees has a secret deal that has terms far more favourable than those set out in our undertaking

248. The only expected new network operator in New Zealand in the foreseeable future is 2degrees. The prices it will face for MTM voice termination on Vodafone’s network do not match those set out in the MTM voice undertaking provided by Vodafone during this investigation.
249. As the Commission would know, the prices contained in the interconnection agreement reached between Vodafone and 2degrees in September last year involve 2degrees paying a price for MTM voice termination on Vodafone’s network of [] VNZCOI. This price is almost [] VNZCOI per cent [] VNZCOI the prices contained in Vodafone’s MTM voice undertaking (and is even more favourable once [] VNZCOI are taken into account). Further, under the terms of the interconnection agreement, Vodafone will pay 2degrees [] VNZCOI rates to terminate traffic on its network in accordance with the [] VNZCOI. The [] VNZCOI terms contained in the undertaking represent a level of [] VNZCOI for 2degrees’ entry into the market beyond that implied by the rates it will pay to terminate traffic on our network.
250. The price 2degrees will pay to terminate traffic on our network is [] VNZCOI reasonable and responsible benchmarks of the cost of providing voice termination in New Zealand and is [] VNZCOI with the benchmark cost estimates released by the

Commission just prior to when the secret deal was struck in September 2008.

251. This point is critical and appears to have been given little weight in the Commission's analysis of whether to recommend regulation of MTM voice termination. In conducting its assessment of the likely costs and benefits of regulating mobile termination in New Zealand, the Commission's factual/counterfactual analysis has focused almost entirely on the rates contained in the undertakings. As the Commission has previously recognised when conducting other investigations, however, it needs to consider two possible counterfactuals – one containing terms set out in any undertakings; and a second involving terms that exist under existing and likely future commercial deals. In this instance, even if the Minister was to accept an undertaking put forward by Vodafone, 2degrees would still have available to it the option of retaining the prices contained in the secret deal. Given the highly favourable nature of these terms, we believe it would continue to remain on the secret deal. Given this, the Commission must actively consider and model the impacts of this deal on the extent to which there really is likely to be a barrier to a new entrant in the mobile market in New Zealand on account of MTM termination rates.
252. Vodafone does not believe it can be credibly argued that our MTM voice termination rates represent a serious barrier to 2degrees entry into the mobile market in New Zealand. This is clearly demonstrated by the fact it is due to shortly enter the market in New Zealand despite the Commission's own recognition that it would be unlikely to be able to set any different rates under regulation until 2011.

Vodafone is willing to extend the secret deal to all new entrants to the mobile market

253. Vodafone is cognisant that when the Commission chose to launch its MTAS investigation in November 2008, it noted that the terms of the secret deal made available to 2degrees would not be available to any other access seekers of mobile termination.⁷⁷
254. In order to ameliorate this concern, Vodafone now commits to make the terms of its secret deal with 2degrees available to any other new entrant into the mobile market in New Zealand if the service does not become designated under the Act. We believe this should provide added comfort that there is no barrier to entry on account of MTM termination for any other potential entrant into the mobile market in New Zealand. The rates contained in this

⁷⁷ In this regard, the Commission noted that "Whereas the current commercial agreement with Vodafone is restricted to NZC, a regulated rate or an undertaking would be applicable to all access providers and access seekers, and may better give effect to the long-term interest of end-users than an offer that is restricted to only one party." See Commerce Commission, *Reasons for Commerce Commission decision to investigate mobile termination access services*, 6 November 2008, at para [21] on p.5.

agreement are clearly [] **VNZCOI** those that would be reached under a reasonable and responsible benchmarking exercise and are immediately available to any new entrant now (rather than having to wait for regulation in 2011).

255. Vodafone recognises that the details of this deal are shrouded in secrecy due to the confidentiality clauses contained within it. Given the crucial importance of this deal to the Commission's assessment of whether to regulate MTM voice termination in New Zealand, Vodafone believes the pricing details of this agreement should be made available for the public to see and comment upon. Accordingly, we give our permission to 2degrees to release to the public the price terms and conditions contained this agreement.
256. At this point in time, however, 2degrees continues to be unwilling to allow the price terms of this agreement to be made publicly available for interested parties to comment upon. We think this says much for the strength of the deal, and the extent to which it contains terms that greatly differ to those 2degrees has been publicly suggesting exist here in New Zealand.⁷⁸ We believe disclosure of the price terms of the secret deal would greatly undermine 2degrees credibility in relation to claims about the high price of MTM termination it faces here in New Zealand. We can, therefore, understand its reluctance to disclose these price terms publicly.
257. Vodafone, however, remains willing for these price terms to be publicly disclosed. If interested parties are interested in knowing the terms of our secret deal with 2degrees, we suggest they contact 2degrees to encourage it to disclose these terms publicly.
258. In any case, the Commission must give more active consideration to these terms when considering whether to recommend acceptance of our undertakings or recommend designation to the Minister.

The Commission's view of competition in the mobile market is outdated and blinkered

259. We believe the Commission has over-sold its belief that the retail market for mobile services is not presently competitive. The Commission's analysis would appear to be mired in concerns it had about the state of competition in the market in the past, and is overly influenced by its blinkered consideration of a few variables in the market.
260. The reality is that as of August 2009, there will be three network operators in New Zealand; five individually branded MVNOs (including TelstraClear which has just signed an MVNO deal

⁷⁸ See, for instance, comments attributed to Mike Reynolds in the Computerworld article of 25 May 2009 noting that "New Zealand comes out with the second highest charges against the European basket of countries, beaten only by Bulgaria".

with Vodafone); and signs that three more will enter the market. As recently indicated in the National Business Review⁷⁹:

Last year, Black+White became Vodafone's first MVNO. It's been joined today by Compass. In August, more muscle will come in behind Vodafone's MVNO plans, with our fourth and fifth largest ISPs, CallPlus/Slingshot and Orcon launching mobile services...Throw in the fact that Two Degrees (formerly NZ Comms) is [launching](#) its own 3G network in August, and New Zealand will have a total of nine companies offering cellphone service by the end of the year.

261. Further, in the period from 2004-05 to 2008-09, the average revenue per minute for calls on our network fell by 18 per cent on average **each** year, while volumes grew by 15 per cent on average each year. For SMS, the results are even more staggering, with the average revenue we receive from SMS services decreasing by 29 per cent on average each year between 2004-05 and 2005-06, and volumes of traffic increasing by 37 per cent each year. It is hard to think of any other market in New Zealand where such price decreases and volume increases have occurred over this period.
262. These are the signs of a market that is experiencing a quantum shift in competitive dynamics. These impacts will be well entrenched by the time the Commission would come to actually setting prices under regulation if the service became designated. Importantly, none of these important benefits and changes have required formal regulation of MTM termination to date. This is a case where the market is looking after itself to provide greater competition and benefits to consumers. It is not the sign of a market where existing operators are seeking to use market power to keep prices up as high as possible.
263. While it is true that there have been large reductions in average prices for on-net calls on our network as a result of the introduction of great value plans such as BestMate and Family, these plans are not in any way anti-competitive, and we don't believe the Commission is suggesting they are.
264. The emergence of a number of competitors in the retail market in recent times and in the near future will accelerate recent trends in price and usage movements for consumers. This will continue to occur irrespective of whether the Commission intervenes to alter prices for MTM termination in New Zealand.

Large drops in MTM termination rates will harm low-spend pre-pay consumers

265. In considering the benefits and costs of potential large reductions in MTM termination rates,

⁷⁹ See <http://www.nbr.co.nz/article/compass-launches-mobile-service-with-1395month-business-plan-102401>

the Commission has failed to adequately account for the detrimental impacts this will have on particular consumer groups – especially low-spend pre-pay consumers.

266. In previous investigations, the Commission has acknowledged that MTM termination rates generate both a stream of revenues and costs for mobile network operators. Whether or not MTM termination revenues are greater than cost for a mobile operator depends on the types of customers they attract to their networks (and not on the basis of their market share). This point is a matter of common sense and is discussed in Covec's report provided in support of this submission.⁸⁰
267. In practice, some consumers tend to receive more calls than they make; while others receive fewer calls than they make. This too is common sense. Given phone calls involve (at least) two consumers, whenever there is someone who makes more calls than they receive, there must be at least one other person who receives more calls than they make.
268. It is commonly understood that the consumers who tend to make more calls than they receive are high-spend customers – particularly those that have an on-account contract. It is also commonly understood that the consumers who receive more calls than they make are low-spend (especially pre-pay) consumers.
269. The implications of this are that low-spend pre-pay consumers (who spend little on retail calls) generate a relatively greater proportion of their revenue for a mobile operator via the termination revenue received from serving these customers. As a result of this, mobile operators do not need to charge as high a set of retail prices than would otherwise be the case to cover the costs of serving these customers because of the termination revenue received from serving these customers. That is, higher termination revenues make lower retail prices profitable for these consumers.
270. Accordingly, a massive and sudden drop in termination rates will make low-spend pre-pay consumers unprofitable at existing retail rates. As a result of this, one should expect that a large drop in MTM termination rates will make low-spend pre-pay customers less profitable for mobile operators to serve, leading to less intense competition to attract these customers to their networks.
271. This point has been recognised by the Commission in its analysis of the effects of implementing BAK (ie zero prices) for MTM termination. There, the Commission correctly

⁸⁰ Covec, *op. cit.*, para [165] at p. 35.

noted the UK Competition Commission's⁸¹ findings that:

... under [BAK] MNOs would no longer receive any revenue from the caller's MNO to cover the cost of terminating M2M calls. This could have a number of detrimental consequences:

(a) MNOs may become less willing to serve customers who receive more calls than they make because a CPP system combined with [BAK] would make them less valuable. The impact on the pre-pay sector in particular would be significant.

(b) ...

(c) Alternatively, MNOs may increase the prices of other services or subscription fees. The former is likely to depress consumption of such services below efficient levels, and the latter is likely to reduce demand for subscription, again with the prepay sector likely to be particularly affected.

272. The same principle would apply should MTM termination rates be immediately and dramatically reduced. In this regard, the Commission's factual scenario would likely see a reduction in MTM termination rates from as high as 15cpm in 2010 to 5.8cpm in 2011 under regulation. While the consequences of such a dramatic price decrease would not be as drastic as a move to BAK, the implications for low-spend pre-pay consumers would still be expected to be substantial. These could include higher retail prices for low-spend pre-pay consumers and/or faster credit expiry times for these consumers.

273. Importantly, large and sudden decreases in MTM termination rates will have different impacts on the way in which mobile operators compete for different types of consumers. In particular, it would likely lead to greater competitive intensity for high-spend on account customers; but less intensive competition for low-spend pre-pay consumers. As indicated earlier in this submission, approximately 71.5 per cent of Vodafone New Zealand's consumers are pre-pay consumers.

274. It follows, therefore, that the implications of lower MTM termination rates will be mixed for different types of consumers. Where such detrimental consequences could occur for low-spend pre-pay consumers, Vodafone believes two things are clear:

- first, the Commission must be far more certain about the underlying cost of

⁸¹ UK Competition Commission, *Determination between Ofcom and Hutchison 3G UK Limited and Ofcom and British Telecommunications plc, under section 193 of the Telecommunications Act in regard to Mobile Phone Wholesale Voice Termination charges*, dated 16 January 2009, at para [14.79].

providing mobile termination service before inflicting these harmful consequences on low-spend pre-pay consumers (especially given these are likely to be the more disadvantaged consumers in the community). As indicated elsewhere in this submission, the consensus of ourselves, Telecom, Covec, NERA and now Analysys Mason is that the Commission's methodology for estimating mobile termination costs in New Zealand is flawed; and

- second, if the Commission is to enforce large-scale reductions in MTM termination rates under regulation, it must do so using a more managed approach, such as a glide path. This will give mobile operators more opportunity to manage the speed of changes in the retail mobile market and ensure consumers can adjust to these changes in a less detrimental way.

275. The rates contained in our MTM undertaking can meet both of these requirements. Given the rates contained in the secret deal for 2degrees (which are now available for any other new entrant into the mobile market), this can be done in a way that does not threaten the ability of a new entrant to enter and compete in the retail mobile market.

The Commission must construct a proper cost-benefit model to analyse the true impact of regulation

276. The Commission has failed to construct a cost benefit model to estimate the expected net gains for consumers of regulation of MTM voice termination. This is a major shortcoming of its analysis that must be rectified.

277. As indicated above, MTM voice termination is both a cost and a source of revenue for mobile operators. Because of this, the net payment made between Vodafone and Telecom has been relatively insignificant over the years. In a market worth \$2.4 billion in revenue, this amount of net transfer between mobile operators is insignificant.

278. MTM termination will also be a source of revenue as well as a cost for 2degrees once it enters the market. While many of its customers' calls will incur a termination fee as much of its traffic will go off-net in the early stages of its operation, so too will most of the calls its customers receive come from off-net. Hence, MTM termination revenue will be just as significant for 2degrees as MTM termination payments it makes to other operators.

279. We do not believe there is any evidence to suggest the size of the net payment between 2degrees and existing operators will be significant. With the small volumes of traffic that will occur on its network in the early stages of its operation, we expect the net payments between 2degrees and the existing operators will be less than \$1 million per annum. Indeed, given the terms of our interconnection agreement with it, 2degrees should expect to comfortably be a [

] **VNZCOI** of MTM termination revenue from us.

280. The failure of the Commission to adequately model the quantitative effects of reducing MTM termination rates means it has not been able to notice these net effects. It must rectify this short-coming in its analysis and provide parties with an opportunity to comment on this analysis before reaching a final view in this investigation. Once it does so, it will be clear that under all reasonable assumptions of traffic volumes flowing between our networks, the size of net interconnection payments could not possibly represent a meaningful barrier to entry in the retail mobile market.

The Commission is confusing the benefits of a new entrant with the benefits of lower MTM termination rates

281. As indicated above, the Commission appears to think that lowering MTM termination rates will remove a significant barrier to entry, and that entry into the mobile market could generate as much as a 5 per cent reduction in retail mobile prices for consumers.

282. In the first instance, the extent to which the Commission seems to think reduced MTM termination prices might generate substantial reductions in retail mobile pricing is inconsistent both with the net impact of reduced termination rates on mobile operator's cash-flows (as discussed above) and its previous findings on this matter. In this regard, during the previous investigation into MTAS, the Commission found that:

A reciprocal reduction in the termination rate for mobile-to-mobile calls has two effects for a mobile network operator. While the cost of terminating outwards mobile-to-mobile calls on the other relevant mobile network will fall, so too will the revenue gained from terminating inbound mobile-to-mobile calls. The net effect will depend on the precise traffic patterns between the two networks.⁸²

283. At that time the Commission appeared to recognise that lowered MTM termination rates would not lower net input costs for carriers as roughly symmetrical traffic flows mean that lower rates would reduce both termination revenue and termination costs to roughly the same extent. As a result of this, it is unlikely that lowering MTM termination rates from current levels will generate any significant net cost savings that can be passed-through into lower retail mobile prices for consumers.

284. We believe this view is correct and represents a much better understanding of the impacts of

⁸² Commerce Commission, *Schedule 3 Investigation into Regulation of Mobile Termination, Reconsideration Final Report*, p73.

MTM voice termination regulation on retail prices than is contained in the Commission's draft views in this investigation. Given there are already a number of structural changes afoot in the mobile services market that will see at least 11 service providers operating in New Zealand by the end of this year, it is hard to see how regulation of MTM termination rates in the future will make any material incremental improvement to the state of competition in the market beyond 2011.

285. Lower MTM termination rates are not needed to secure new entry into the mobile market in New Zealand. 2degrees has already signalled its intention to enter the mobile market even though regulated would be likely to take effect until 2011. Hence, many of the benefits that the Commission posits will come from new entry would appear to already be on their way.
286. For the reasons discussed above, we believe that MTM termination rates are not a barrier to entry in the mobile market in New Zealand. To the extent that on-net pricing becomes a barrier to entry in the future if retail on-net prices on existing operators networks fall to dramatically low levels, the Commission has the power to consider whether this is an anti-competitive action using its powers under the Commerce Act. This is the appropriate tool to deal with concerns about on-net pricing rather than tinkering with MTM termination rates that will have negligible impacts on a new entrants cash-flows once it enters the market.

Structure of this section of the submission

287. Overall, we disagree with each of the fundamental assumptions that underpin the Commission's analysis as outlined in paragraph 243 above. In particular, we believe:
- there is no credible evidence to suggest the prices payable by any new entrant (including 2degrees) to terminate traffic on our network lies above a responsible and reasonable benchmark estimate of the cost of providing mobile termination in New Zealand;
 - there is no credible evidence to suggest the combination of our on-net retail prices and the MTM termination rate faced by 2degrees is a barrier to entry in the market; and
 - the competitive state of the mobile market is much healthier than the Commission's analysis suggests. Combined with the negligible net impact reduced termination rates will have on the net cash-flow of a new entrant, we believe regulation of MTM termination rates will have no material impact on the state of competition in the mobile market in New Zealand.

288. In support of these views, the remainder of this section of our submission provides further detail that:

- outlines why the Commission must develop a proper cost-benefit model to estimate the impacts of regulation of MTM termination;
- makes a number of observations about the Commission's analysis of the state of competition in the retail mobile market;
- discusses the likely detriments that will flow for low-spend pre-pay consumers as a result of severe and immediate decreases in the price of MTM termination; and
- seeks to quantify the size of net payments likely to occur between Vodafone and 2degrees under both the existing interconnection agreement and the Commission's proposed regulatory factual to demonstrate the immateriality of MTM termination rate reductions under regulation.

B. The Commission must construct a cost benefit model to estimate the net impacts of MTM termination rate reductions

289. In its assessment of whether regulation of FTM termination rates will best give effect to section 18 in the Draft Report, the Commission employed both quantitative and qualitative methodologies. In particular, the Commission modelled the quantitative long term benefits and costs to end users, and reached the conclusion that there were reasonably substantial net benefits, as compared to the counterfactual of the undertakings.

290. However, when it came to consider whether regulation of MTM termination rates will best give effect to section 18, the Commission decided that qualitative methodologies were sufficient:

“The Commission has considered the potential impact in the downstream mobile services market using a more qualitative approach, due to the difficulty of measuring the extent of new entry into this market.”⁸³

291. This decision not to use quantitative modelling is in contrast to the approach taken by the Commission in its Final Report in March 2008 on the Schedule 3 investigation into amending the roaming service. In that report, the Commission stated:⁸⁴

“As noted in previous investigations, the Commission considers that quantitative modelling is useful to the degree that it focuses on key assumptions regarding characteristics of the market and the way in which participants are likely to act, with and without regulation.”⁸⁵

292. Indeed, it was as a result of this quantitative modelling approach that the Commission concluded:⁸⁶

“However, when compared to the commercial agreement, the Commission’s analysis shows that the incremental impact of designation on entry is relatively minor.

⁸³ Paragraph xxiv of the Executive Summary, page 13

⁸⁴ Paragraph 274

⁸⁵ The Commission also went on to state that “The Commission does not consider that any model supplants the Commission’s exercise of discretion, but rather informs the basis of the Commission’s decisions. In this case, the Commission has used quantitative modelling to assist in determining whether designation of the service would promote competition, including by reducing barriers to entry.”

⁸⁶ Paragraph 280

Accordingly, the Commission does not recommend designation of the roaming service because it is unlikely to best give effect to section 18."

293. And while, in the Draft Report, the Commission had "difficulty...measuring the extent of new entry into this market", the Commission had no such qualms when it had to undertake another difficult exercise in producing its Final Report in March 2008:⁸⁷

"The Commission has applied the respective roaming rates to forecast roaming volumes provided by NZC. The Commission has also independently estimated possible roaming volumes, based on NZC's expected market share, network coverage, and the resulting probability that NZC traffic will involve roaming onto Vodafone's network."

294. Vodafone submits that the Commission should have undertaken quantitative modelling of the long-term benefits and costs to end-users, before determining that regulation of MTM termination rates would best give effect to section 18. It should not have been difficult for the Commission to seek an estimate from interested parties on forecast traffic volumes for MTM termination over the next few years. It also has available to it trend data on MTM traffic volumes for Vodafone and Telecom based on the data it has collected during this investigation. The Commission has had almost a year since releasing its Issues Paper in relation to this investigation in August last year, and so has had ample time and opportunity to construct a quantitative model that could be used to assess whether regulation of MTM is likely to have any material impact on the profitability of existing and new entrants in to the mobile market. Even if such an analysis is not simple, it does not mean it should not be undertaken. The reasons for deciding not to undertake quantitative modelling and, with respect, inadequate in Vodafone's view.

The appropriate counterfactual for MTM

295. In most parts of the Draft Report, when describing the counterfactual applied by the Commission in the factual-counterfactual test, the Commission refers to the undertakings received from Telecom and Vodafone.⁸⁸

296. In Vodafone's previous submissions, we noted that the Commission needed to apply the factual-counterfactual test twice:

- one test in which the net benefits of regulation are compared to the net benefits of non-regulation (i.e. relying on commercial agreements and the MTR deeds); and

⁸⁷ Paragraph 277

⁸⁸ For example, paragraph xxiii of the Executive Summary

- one test in which the net benefits of regulation are compared to the net benefits of an undertaking.

Indeed, we noted that the Commission applied the factual-counterfactual test twice in the national roaming investigation⁸⁹.

297. In the context of assessing the net benefits to end-users of regulating MTM termination rates, we believe that particular significance must be given to the interconnection agreement entered into between Vodafone and 2degrees in September 2008. We believe that this degree of importance is required because:

- 2degrees is the only new mobile operator entrant that has publicly announced its intention to enter the market, and Vodafone is a major existing mobile operator; and
- the level and structure of interconnection rates in this interconnection agreement is quite different, and more advantageous to 2degrees, as compared to the undertaking given by Vodafone.

298. However, when reviewing the Draft Report, one is left with the impression that the only counterfactual that is relevant to MTM termination rates is the undertakings.

The Commission's discussion of the 2degrees and Vodafone interconnection agreement

299. The Commission's discussion of the 2degrees and Vodafone interconnection agreement appears to be primarily in paragraphs 781 to 783 of the Draft Report. Unfortunately, much of the relevant information in those paragraphs is redacted as Commission Only Information. Vodafone would like to have this information made public, as the public statements by 2degrees give the impression that the agreement is much worse than the one that they actually entered into with us.

300. The Commission makes several observations in these paragraphs:

- the MTRs are significantly above the Commission's benchmarked MTR of 7.2cpm; and
- this could enable Vodafone to maintain the differentials in on-net and off-net retail pricing, which may result in net traffic flows from the smaller network to the larger network.

⁸⁹ Commerce Commission *Schedule 3 Investigation into amending the roaming service: Final Report*, paras 278-280 (10 March 2008).

301. The Commission goes on to comment on asymmetric MTRs, which suggests that the 2degrees and Vodafone interconnection agreement has asymmetric MTRs. Vodafone is unable to confirm whether this is the case, as a result of 2degrees' refusal to allow the interconnection agreement to be made public.
302. On the question of whether the MTRs in Vodafone's interconnection agreement with 2degrees are "significantly above" the Commission's benchmarked MTR of 7.2cpm, it is instructive to compare the Commission's approach to materiality in the national roaming Final Report:
- At the time of the Final Report, when the Commission was prepared to use a factual roaming rate of 12cpm, the rates in the commercial agreement with 2degrees at the time were from [] VNZCOI depending on volumes. This is a difference of between [] VNZCOI
 - In the Draft Report, with a factual MTR of 7.2cpm, the rate in the commercial agreement with 2degrees is [] VNZCOI. This is a difference of [] VNZCOI.
 - Clearly for calls [] VNZCOI, the differences are significant. However, particularly as compared to the Commission's analysis in the national roaming Final Report, the differences are not significant [] VNZCOI.
303. The ability for Vodafone to maintain differentials in on-net and off-net retail pricing is troubling the Commission. The concern is the impact that differential pricing may have on the flow of traffic from the smaller mobile network to the larger network. The Commission refers to the concerns that the EC has over differential pricing, despite there being asymmetric MTRs in France (to take the example given by the Commission).
304. However, Vodafone submits that the Commission has not done nearly enough in this area. It is clear to Vodafone that relativity of MTRs matters. Asymmetric rates are very important in comparing the factual of regulation and the counterfactual of a commercial agreement, whether or not those asymmetric rates are above the factual MTR.
305. The Commission must undertake quantitative modelling before deciding whether regulation of MTM termination rates does best give effect to section 18. It is through this modelling that the Commission can check whether it is right in its qualitative assumptions.

The extent of any net benefits

306. Vodafone reiterates its view set out in earlier submissions that there needs to be sizeable net benefits for end users arising out of regulation compared to the counterfactuals. We note that the difference in net benefits should be “significant”⁹⁰, “material”⁹¹ or “substantial”⁹² as the Commission has stated in the past. This margin is required because of the risk of regulatory error, and because of the costs of regulatory intervention, uncertainty and delay.
307. This process of regulation is undoubtedly also uncertain and time consuming (causing delay). This uncertainty is a major issue for Vodafone as MTAS revenue comprises a significant proportion of our overall revenue. Uncertainty about regulatory settings for MTAS and the consequential revenue flows impacts all parts of our business, which in turn affects consumers.
308. Uncertainty over MTAS regulation will have a dampening effect on the business, causing a reduction or slow down in the levels of network investment and marketing initiatives. The period of this uncertainty is also significant. It may be a year or more before we have a clear idea of the likely MTAS price arising from regulation.

⁹⁰ Commerce Commission *Schedule 3 Investigation into amending the roaming service: Final Report*, para 265 (10 March 2008); Commerce Commission *Schedule 3 Investigation into regulation of mobile termination: Final Report*, paras 225, 357, 405 (21 April 2006).

⁹¹ *Ibid*, para 459.

⁹² Commerce Commission *Schedule 3 Investigation into amending the roaming service: Final Report*, para 266 (10 March 2008).

C. The Commission has an outdated and blinkered view of the state of competition in the retail mobile market

309. The Commission has assessed competition in the retail mobile market and found “a range of evidence that there is limited competition in the market”.⁹³ In this section, we respond to the Commission’s assertions that the retail mobile market is not competitive. The Commission’s specific claims that we believe are inaccurate are:

- the market is concentrated in contrast to comparable countries;
- MVNOs are not a threat to infrastructure competitors as the MVNO deals are thin and do not allow the MVNOs to differentiate their products;
- mobile voice usage is low;
- mobile voice is a lower proportion of total voice than in Australia;
- prepaid prices are high;
- the ARPU to voice minutes ratio is high;
- handset switching costs are high; and
- penetration is 108% which is attributable to consumers having two phones to take advantage of on on-net deals.

We respond to each of these concerns below.

The New Zealand mobile market is becoming increasingly competitive

310. The Commission claims that “the New Zealand mobile market is highly concentrated compared to that of similarly developed countries”.⁹⁴

311. The New Zealand market is less concentrated than the Commission imagines:

- New Zealand has a third infrastructure-based competitor about to enter the market;
- there are five individually branded MVNOs already in the market competing (TelstraClear, M2, Compass, Digital Island and Black & White);

⁹³ Draft Report, paragraph 176 – 307.

⁹⁴ Draft Report, paragraph 188.

- three more individually branded MVNOs are set to enter the market (Callplus, Slingshot and Orcon); and
 - there are numerous wholesale providers.
312. The Commission must consider these facts in its competition assessment.
313. Referring to countries in Scandinavia, the Commission “considers that there is still evidence of greater facilities-based competition in these countries than in New Zealand”. Vodafone submits that using the market structures of a set of much wealthier countries as a benchmark for New Zealand is unwise and ignores the wide range of factors that might influence market structure. These include income, the pricing of fixed telecommunications, how these markets have evolved since the introduction of mobile, and so on. It is simply not possible to compare different market structures without taking account of such factors.
314. In addition, the mobile markets in the Scandinavian countries (Finland, Norway and Sweden) are characterised by a large dominant operator with greater than 50 per cent market share, and with the residual of the market fragmented between three or four other smaller operators. It is not clear whether such a market structure will generate more intense competition than New Zealand’s market structure, where there are at least two strong network operators and a string of other service providers who are emerging in the retail market.

MVNOs are increasing the intensity of competition in New Zealand

315. The Commission claims that “MVNOs are unlikely to increase competition in this market to the same extent as a facilities-based entrant” because “The MVNO agreements that have been signed appear to be relatively “thin”, in the sense that the ability of the MVNOs to differentiate and offer innovative new retail services is limited.”⁹⁵
316. This is incorrect. Vodafone’s MVNO deal with TelstraClear is for bulk national minutes which will allow it significant flexibility to design retail offers. In addition, all five other MVNOs listed above have [] **VNZCOI**. This information must be considered by the Commission when it assesses competition in the market.

Mobile voice usage in New Zealand reflects local factors and is growing rapidly

317. The Commission observes that mobile outgoing minutes per subscriber in New Zealand is

⁹⁵ Draft Report, paragraph 180.

lower than in five other countries.⁹⁶ This comparison ignores several important factors.

318. First, the price of a residential local fixed-line call is free in New Zealand, and such calls will be a very good substitute for mobile calls in many cases. Free local calls will tend to depress demand for mobile calls regardless of pricing, and this should be taken into account when comparing mobile usage in New Zealand with other countries where local calling is not free.
319. For example, in Australia, Telstra offers a range of residential fixed-line plans, charging from AU 30c per local call with a landline rental of AU\$20.95 per month, to free local calls for AU \$69.90 per month.⁹⁷ In the UK, BT similarly offers a range of plans such as the 'Weekend' plan at £11.25 per month with local calls during weekdays charged at 8p per call and 4.5p per minute in the daytime and 1.45p per minute at night.⁹⁸ It is not possible to compare mobile usage across countries without accounting for differences in the prices of substitutes, such as local calls.
320. Second, SMS prices in New Zealand are low and SMS usage is high. In many cases, sending an SMS is a good substitute for making a call, and when SMS prices are as low as they are in New Zealand, it often makes sense to do so. The fact that SMS prices are low and this induces consumers to send more SMS and make fewer calls does not make consumers worse off – cheap SMS can only serve to benefit consumers – and this will be reflected to some extent in the level of voice usage.
321. Finally, voice usage in New Zealand is growing rapidly. As indicated elsewhere in this submission, the volume of voice calls has grown rapidly in New Zealand in recent years. In this regard, the number of calls made per customer on our network has grown at a compound annual growth rate of 15 per cent per year over the period from 2004-5 to 2008-9.

Mobile usage as a proportion of total usage reflects free local calling

322. The Commission claims that "New Zealand mobile calls comprise around one quarter of all retail calling minutes on voice networks" and that "in Australia nearly half of all voice minutes are mobile minutes."⁹⁹ As we discussed above, Vodafone submits that this is indicative of the excellent value that competition has delivered for SMS users in New Zealand, and of free local calling.

⁹⁶ Draft Report, Table 13.

⁹⁷ See http://www.telstra.com.au/homephone/plans/compare_and_order_a_plan.html.

⁹⁸ See <http://www.productsandservices.bt.com/consumerProducts/displayCategory.do?categoryId=CON-HOME-PHN-R1>.

⁹⁹ Draft Report, paragraph 205 – 206.

323. The Commission attributes relatively low mobile voice usage to “relatively high prices”.
324. In the case of New Zealand, there are very low cost substitutes: SMS and free local calling. This means that consumers are more likely to choose these substitutes ahead of mobile voice, hence the ratio of mobile voice to total voice minutes will be lower.
325. In contrast, Australia doesn’t have free local calling, and SMS prices are higher there – A\$0.28 per text on prepay. These higher prices will tend to shift traffic to mobile voice in Australia relative to that observed here in New Zealand.

Our prices perform well in the OECD rankings

326. As the Commission notes, our on-account pricing ranks in the top half of the OECD countries. In terms of prepay pricing, the OECD benchmarking is not very reliable because it does not allow for offers such as Bestmate, which is popular with prepay users, and our Family plans. The OECD benchmarks will therefore overestimate the cost that prepay customers in New Zealand pay to obtain a given amount of usage.
327. It is also difficult to compare prepay pricing across countries without taking account of the minimum top-up requirements that are imposed on prepay customers in many countries. Our customers must top-up by a minimum of only \$20 per year. In contrast, the prepay plans of Telstra in Australia that the OECD benchmarks against require minimum top-ups of between A\$60 and A\$720 per year, in exchange for cheaper per-minute pricing. In the UK, minimum top-ups are up to £180 per year, and in the USA, top-ups of US\$100 per year are required.¹⁰⁰
328. In many other countries, prepay pricing is therefore similar in nature to on-account pricing, and if customers want to get low per-minute rates then they must top-up frequently and by a significant amount. This makes it difficult to compare New Zealand prepay pricing which does not require large and frequent top-ups to maintain a connection.

Comparing average revenue per minute across countries is difficult

329. The Commission refers to some analysis it undertook in the Issues Paper comparing average revenue per minute (ARPM) in New Zealand with other countries.¹⁰¹ The Commission appears to have calculated ARPM by dividing average revenue per user (ARPU) by average minutes of use per user.
330. This type of comparison is of very limited relevance because mobile services are sold as a

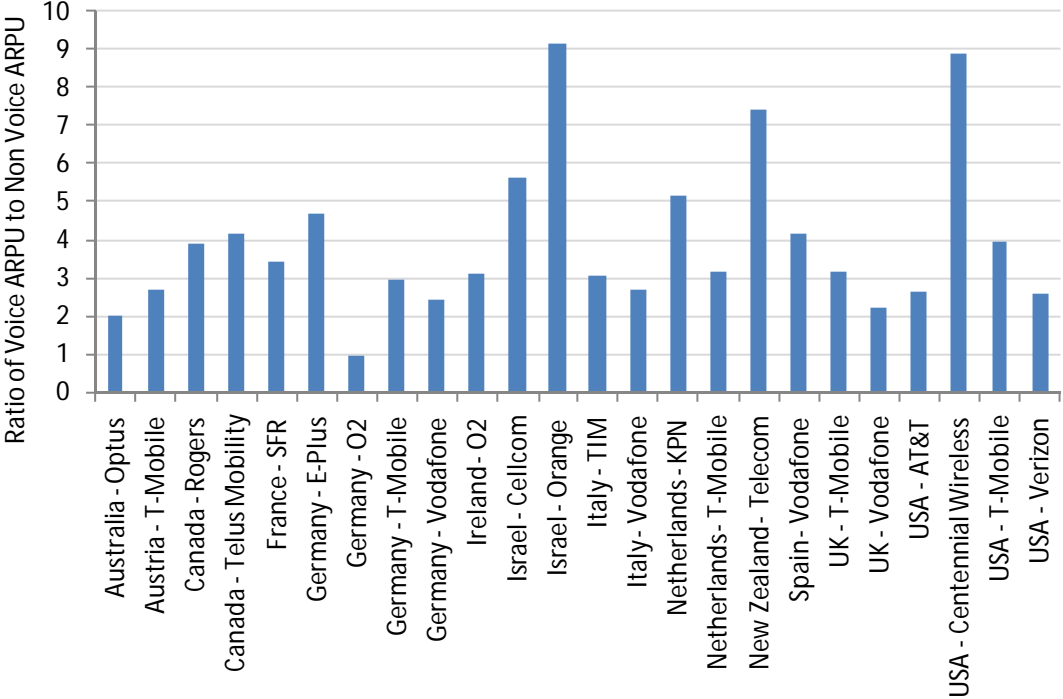
¹⁰⁰ Figures obtained from the November 2008 Teligen T-Basket data.

¹⁰¹ Draft Report, paragraph 221.

bundle comprising calls, texts, network access, and increasingly, data and other enhanced services. Attributing all revenues to voice calls gives a misleading comparison across countries, because operators in different countries design their bundles in different ways depending on their chosen business strategy and the preferences of their local consumers.

331. To illustrate, Chart 3 shows the ratio of voice to non-voice ARPU for various operators in different countries in the first quarter of 2009, as reported by Wireless Intelligence. This ratio varies greatly across operators, and even across operators within the same country. This demonstrates that different operators pursue quite different strategies in terms of the bundles that they provide to consumers and which services are primary drivers of revenue. Calculating ARPM on the basis of total revenues divided by total minutes will therefore not give a meaningful comparison across operators, as it ignores differences in the importance of different revenue sources driven by the operators' business strategies.

332. **Chart 3** Ratio of voice to non-voice ARPU, Q1 2009 (source: Wireless Intelligence).



Handset switching costs are not a barrier to competition

333. Vodafone churn in the past three years has averaged around [] VNZCOI. This suggests that the need to swap handsets has not been a significant barrier to competition. Handset switching costs are even less significant with Telecom's launch of the XT network, which uses GSM/WCDMA technology.

Penetration in excess of 100% is not driven by customers having multiple handsets to take

advantage of on-net pricing

334. Penetration figures are calculated on the basis of the number of active SIM cards divided by population. Every device connected to a mobile network has a SIM card, even if it is not a phone. This includes data devices that are used to provide mobile broadband services. Data connections currently make up about [] **VNZCOI** of our total customer base. Each of these customers likely also has a mobile phone and therefore accounts for two SIM cards. [

] VNZCOI.

335. In addition, some people will have two handsets for reasons unrelated to wanting to take advantage of on-net pricing. For example, they may have a work phone paid by their employer but also need another phone for personal use.

336. Taking these factors into account, there is no evidence that greater than 100% penetration is driven by consumers having multiple handsets to take advantage of on-net pricing.

D. Large decreases in MTM termination will cause significant detriments for low-spend pre-pay consumers

337. The Commission acknowledges that a move to bill-and-keep will have significant adverse affects on low-spending mobile consumers,¹⁰² but fails to recognise that the same will occur for any regulated reduction in the MTM termination rate. In our view, the difference is simply a matter of degree. Termination revenues are an important part of what makes low-spending mobile customers profitable and a cut in the MTR will make it uneconomic for mobile networks to provide service to some of them.
338. As the Commission notes, about two-thirds of mobile subscribers in New Zealand and almost three-quarters of Vodafone's customers are on prepay, and therefore the adverse effects of a move to bill-and-keep could be large and affect many people. The same is true, albeit to a lesser degree, of the Commission's proposal to more than halve termination rates in a short period of time by regulation.
339. This is the essence of the waterbed effect and it is very important for the Commission to recognise that the negative consequence of the waterbed effect will not be evenly distributed across mobile consumers. Reducing the termination rate will make low-spending mobile consumers worse off, while competition for consumers who make a lot of calls will intensify and they may be better off. It is questionable whether the Telecommunications Act should be used as a tool for redistribution away from low-spending consumers and towards high-spending consumers.
340. Given the number of low-spending consumers in New Zealand, the aggregate waterbed effect will be negative even if some mobile consumers benefit from greater competition. To avoid the losses associated with serving some low-spending customers, mobile operators may have to take steps such as increasing the price of handsets, raising the minimum top-up for prepay customers, and/or making prepaid credit expire more quickly. Such changes have the effect of increasing the 'subscription' price that prepay customers face. The result will be that some low-spending customers will give up their mobile service as they are no longer able or willing to provide the revenue that was formerly generated by te rmination of calls to them.
341. That low-spending mobile customers will suffer as a result of regulation is an unavoidable fact, and Vodafone submits that the Commission must have regard to the distribution of these effects across mobile consumers. Arguably, being unable to afford mobile service as a result of

¹⁰² Draft Report, paragraph 409.

termination regulation is a worse outcome for a consumer than a price increase for a consumer who remains connected. This is particularly true when we consider the fact that many low-spending consumers already belong to disadvantaged social groups.

342. We question whether a policymaker would choose to implement a policy that makes already disadvantaged people worse off while making high-spending mobile consumers better off. This effect will be more acute given the economic climate which makes the prepay option even more valuable to those on a tight budget: it allows those people to remain in contact, in an affordable way.
343. Indeed, a drastic and immediate reduction in MTRs will have flow-on effects that may be inconsistent with the wider regulatory system and the Government's policy towards telecommunications. Universal access policies and the telecommunications service obligation may not sit well with a policy for MTAS that results in low-income prepay consumers being disadvantaged.
344. To assess the impact of regulation on different consumer groups, it is useful to examine outcomes in the mobile market in bill-and-keep countries. Analysys Mason recently conducted a case study of mobile termination regimes in such countries for Ofcom.¹⁰³ In the US and Canada in particular, mobile penetration rates are significantly lower than in New Zealand and Europe. This is due to the lower incidence of prepaid subscribers and the relative lack of plans targeted at low-spending consumers.
345. In the US, consumers who want mobile service are generally forced to buy a large bundle of minutes each month for a relatively high price. US price plans encourage high consumption at low per-minute prices, in exchange for high levels of monthly expenditure. It is not possible to maintain a mobile subscription without a significant spend per month. This is because, in the absence of termination revenues, consumers who make few calls will be unprofitable for mobile networks to serve. While the Commission is not proposing a move to bill-and-keep, similar effects will occur under regulation that leads to a sudden decrease in MTM termination rates in the order of 60 per cent (as is currently being contemplated by the Commission).
346. In its consultation on future MTR regulation, Ofcom considered that distributional concerns are important because it acknowledges the relationship between termination rates and retail mobile prices, and therefore penetration and usage.¹⁰⁴

¹⁰³ Ofcom Consultation of 20 May 2008, Annex 8.1, Report by Analysys Mason for Ofcom, *Case Studies of Mobile Termination Regimes in Canada, Hong kong, Singapore and USA*, 26 November 2008.

¹⁰⁴ Ofcom, *Wholesale mobile voice call termination: Preliminary consultation on future regulation*, 20 May 2009, paragraph

High termination rates tend to lead to a retail price structure with relatively high off-net call charges (since operators 'cover' their wholesale cost of each minute of a call with a corresponding retail charge) and lower subscription charges (since subscribers generate incoming calls that provide call termination revenue). This might imply market outcomes with a higher level of take-up (and/or multiple subscriptions) and lower usage per subscriber. Equally, if termination rates are low, consumers will tend to face higher subscription fees but lower or no charges to make (or receive) calls. This might be expected to lower take-up, but increase usage amongst those who do subscribe.

347. Ofcom further elaborated that:¹⁰⁵

All other things being equal, call charges are likely to become less important, [when the termination rate is lower] though subscription fees or 'access' related charges (such as minimum top-ups) could become more important.

Retail charges for other services, particularly for newer services such as data services may also be set at a higher rate than would otherwise have been the case. Charges for these services may also fall less quickly than they may have.

348. As a result of these links, Ofcom has expressed the view that distributional effects are a relevant consideration when comparing possible regulatory regimes for mobile termination:¹⁰⁶

Which consumers will be better off, and which worse off, as a result of adopting the option? While the overall impact on consumers is examined under the concept of economic efficiency, the different approaches might have some distributional effects, for example, between high and low usage mobile users.

349. There are two implications of the fact that mobile termination regulation will hurt low-spending mobile consumers. First, the Commission must be very sure that its estimate of the cost of mobile termination in New Zealand is accurate. The lower the termination rate under regulation, the greater the adverse effects on low-spending consumers will be. If the Commission underestimates the cost, it risks creating unnecessarily large detriments for the low-spending market segment without any offsetting economic benefits. Given the uncertainty associated with the Commission's benchmarks, there is a very real risk of regulation doing unnecessary harm to low-spending mobile consumers.

6.39.

¹⁰⁵ Ibid, paragraph 6.42 – 6.43.

¹⁰⁶ Ibid, paragraph 6.17.

350. Second, the Commission must include a glidepath in any regulation that it recommends. This will give mobile operators time to adjust to the reduction in revenues that can be earned from termination, and allow us to grow other sources of revenue. Consumers usually cannot change their behaviour overnight, but given time we will be able to develop alternative revenue sources from low-spending consumers such as mobile internet-based services. In this way, the adverse effects of regulation on low-spending consumers can be minimised, particularly price increases that force them to drop out of the market.
351. As we stated in our submission in May (and summarised in paragraphs 97 – 101 of the Draft Report), Ofcom, the European Regulators Group, the ACCC and the UK Competition Commission all acknowledge that immediate implementation of termination rate reductions is likely to have adverse effects on mobile operators and consumers. In the US, the FCC has also recognised the need for a glidepath in its consultation document on how it proposes to reform the current termination regime in the US, as summarised by Analysys.¹⁰⁷
352. In proposing the current reform, the FCC recognises the adverse effects on markets of moving too quickly to the new regime. There is a concern both in a sudden reduction in carriers' termination revenues and also, as a result, of an increase in charges to consumers. Because of this, the FCC decided to adopt a gradual ten year multiple stage transition plan designed to reduce rates over a sufficient period to 'minimise market disruptions and cushion the impact of their reform on both customers and carriers'.
353. These arguments in favour of a glidepath are strengthened once the disproportionate adverse effects on low-spending mobile consumers are taken into account.

¹⁰⁷ Analysys Mason, Annex 8.2, FCC Position on Termination Rates, paragraph 16, in Annex 8.1, *Report by Analysys Mason for Ofcom: Case Studies of Termination Regimes in Canada, Hong Kong, Singapore and USA*, 26 November 2008.

E. The net impact of reduced termination rates on the cash-flow of new entrants will be trivial compared to the other costs of entering the market

354. As indicated above, Vodafone commits to provide MTM termination to new mobile network entrants on the basis of the rates contained in the secret deal with 2degrees signed in September 2008. Under the terms of the secret deal, Vodafone will charge 2degrees [] VNZCOI on a [] VNZCOI until [] VNZCOI. In return, Vodafone has agreed to pay 2degrees prices that [

] VNZCOI.

355. In contrast, the Commission has indicated that if it were to regulate the price of the service, it would be likely to reduce prices to 5.8cpm on 1 January 2011, and have reductions in price of 10 per cent per annum in each subsequent year.

356. Given the size of these reductions is large, and would likely lead to a reduction in the intensity of competition for those types of consumers that tend to receive more calls than they make (eg low-spend pre-pay consumers), the Commission would want to believe that such a change in pricing would have a material impact on the ability of a new entrant to compete on its merits. For this to be the case, the Commission would want to believe that the set of prices it would propose under regulation would generate a substantially improved level of net payments made by 2degrees (or any other new entrant) to Vodafone and Telecom under regulation than would otherwise be the case. In considering this, it is important for the Commission to have regard not just to the undertakings on offer by Vodafone and Telecom, but also the commercial deals that would be likely to exist absent regulation. Given 2degrees will have the option of staying with the secret deal even if the Minister accepts a Vodafone undertaking in relation to MTM termination, we believe the details of the secret details must be considered as part of the counter-factual.

357. To estimate the net impact of the Commission's proposed regulated prices compared to the rates set out in the secret deal, Vodafone has sought to construct a model that estimates the net cash-flow impact of the regulated rates versus the rates contained in the secret deal. In constructing this model, Vodafone assumes that:

- upon entry, 2degrees is successful in quickly attaining 5 per cent market share;
- this market share is acquired from Telecom;

- 2degrees customers will, initially, make the same number of calls to Vodafone consumers as they did, on average, when they were with Telecom; and
 - Vodafone consumers will make the same number of calls to the new 2degrees customers as they did when they were with Telecom.
358. Each of these assumptions can be adjusted to estimate the impacts of MTM termination rates under regulation as compared to the secret deal.
359. Under this initial base case scenario, we estimate that with the secret deal, Vodafone will actually make a net payment to 2degrees over the period up until 31 March 2012 of [] **VNZCOI** million. In other words, under the terms of the secret deal, 2degrees will make money out of MTM interconnection payments made to and received from Vodafone.
360. Were the price of MTM termination to change to those set out in the Commission's regulatory factual scenario, however, the balance of net payments should be expected to be reversed. Indeed, 2degrees would expect to make a net payment to Vodafone under regulation of [] **VNZCOI** million over the period up until 31 March 2012.
361. It follows, therefore, that if calls between the 2degrees and Vodafone network match the current pattern of calls between Telecom and Vodafone customers, than 2degrees will actually be **worse off under regulation** by around \$2 million over the period until 2012 than it would be under the terms of the secret deal. Where that is the case, we would expect 2degrees to stay on the terms of the secret deal rather than move to the terms set out in the Commission's regulatory factual scenario.
362. It cannot be guaranteed, of course, that call patterns between Vodafone and 2degrees customers will match those between Vodafone and Telecom consumers. The actual levels of traffic that flows between our networks will naturally depend on the retail propositions that both parties introduce into the retail mobile market.
363. It is highly unlikely, however, that 2degrees will be able to use its retail pricing to make MTM termination as profitable under regulation as it is under the secret deal. To restore the profit it would expect to make under the secret deal of [] **VNZCOI**, 2degrees would have to change the balance of calls between our networks so that it receives [] **VNZCOI** calls for every off-net call that its customers make. However, while 2degrees can use its retail pricing to induce its own customers to make more off-net calls, it cannot do anything to make customers of other networks make more calls on average in response.
364. Therefore, it is hard to see how regulation of MTM voice termination can possibly promote

competition in the mobile market relative to the commercial offer. Put simply, the terms of the commercial deal with 2degrees are such that it is hard to see how regulation in the form proposed by the Commission can be in its favour.

365. It is not enough for the Commission to devotedly stick to a mantra that price must equal overseas cost model estimates for all possible interconnection services. It must go further and demonstrate how doing so will generate sizeable net benefits to consumers. Regulation comes at a significant resource cost (and generates significant uncertainty for all business involved) that must be greatly outweighed by a likely net benefit to society.
366. The Commission has not shown this yet for MTM termination, and we believe it will be very hard-pressed to complete any form of welfare analysis that shows a substantial net benefit will follow regulation of MTM termination to warrant spending millions of dollars implementing such regulation.

SMS termination

The Commission's draft views

367. The Commission's case in support of its draft view that SMS termination should be regulated is similar to that which it has argued for MTM voice termination. In particular, the Commission would appear to believe that SMS termination prices (both in the undertakings put forward by Vodafone and Telecom, and the secret commercial deal struck between Vodafone and 2degrees) are well in excess of its estimates of the costs of SMS termination. It believes that such termination rates can, when combined with heavily discounted on-net retail prices, create a barrier to entry for new entrants into the retail mobile market.

The Commission must conduct a proper and traditional analysis of SMS termination before deciding whether to recommend regulation of this service

368. In reaching its draft view that SMS termination should be regulated, the Commission would appear to have simply assumed that SMS termination is like voice termination. That is, it would seem to have reached a view that termination of an SMS on a mobile network is a bottleneck service much like it has concluded in the past that termination of voice services on a mobile network is a bottleneck service. From here, it seems to have jumped to the same conclusion it has reached for voice termination – that the price of termination should be set equal to the TSLRIC+ of providing the service.

369. There are, however, a number of unique features about SMS termination that mean it has to be analysed differently to voice termination. Because of these features, the familiar conclusion that termination prices should reflect the underlying cost of providing the service does not necessarily apply. This is for two key reasons:

- first, the nature of the service is that it is a two-way means of communication whereby both parties engaged in an SMS communication send messages back and forth to each other. This means that interconnection traffic between mobile networks is likely to largely be balanced. Further, unlike voice communication where only the calling party pays for a conversation, under SMS communication both consumers involved in the communication share the price of the conversation by paying to send traffic to and from each other; and
- second, because of the two-way nature of SMS communication, the effective price faced by a mobile operator whose consumer commences an SMS conversation is significantly below the apparent "headline" SMS termination rate. That is, given an SMS message tends to elicit a response in reply, whenever a mobile operator pays a

termination fee to an interconnecting carrier, it will generally receive termination revenue in reply when the recipient of the SMS sends a text back in reply.

370. These features of SMS communication mean that SMS termination is subtly different to voice termination. To appreciate the implications of these differences, we believe the Commission must conduct a proper analysis of whether to regulate SMS termination by going “back to basics”. In particular, the Commission must:

- conduct a proper market definition analysis – both for SMS termination and the retail market within which it is provided;
- consider the current state of competition in relevant markets; and
- then consider whether regulating the price of SMS termination at cost will give rise to appreciable benefits that would outweigh the costs of regulation.

371. Further, the Commission must actively consider whether it would be appropriate to price SMS termination at the TSLRIC+ of providing the service. In this regard, we would argue there are good arguments to suggest low prices for SMS termination increase the risk of SMS spam – a factor noted by the French regulator (ARCEP) when concluding that the regulated price of SMS termination should lie above its estimate of the cost of providing the service.

372. Once the Commission conducts such an analysis, we believe it is clear that:

- at both the wholesale and retail levels, SMS is subject to strong competitive constraint by the emergence of web-based instant message (IM) services such as Blackberry PIN;
- both on-net and off-net SMS prices are already subject to rapid price decreases in New Zealand;
- the two-way nature of SMS termination traffic – and the favourable terms now available from Vodafone to all entrants in the mobile market – mean that new entrants are likely to actually be **worse off** under regulation than they would be under commercial offers now on the table before them; and
- dropping prices to the levels contained in the Commission’s Draft Report runs the risk of increasing SMS spam at great cost for mobile operators and consumers – and this should be recognised when determining an appropriate price for SMS termination services.

The Commission must do more to understand the nature of SMS communication

373. Vodafone submits that the nature of SMS fundamentally distinguishes it from voice.
374. When a subscriber sends an SMS, there is a strong probability that they will receive a reply. This is an artefact of using a one-way communication channel for two-way communication—to achieve dialogue with SMS, parties need to **exchange** messages. So SMS messages tend to cause other SMS messages in reply.
375. Crucially, both parties share the costs of the communication, and both party's networks pay termination costs. This has two effects. First, it internalises the calling externality that is sometimes argued to exist with voice communications. And second, the termination payments between interconnecting networks tend to net out.
376. This leads to balanced—or near balanced—traffic between networks that in turn reduces the impact that SMS termination has on carriers' cashflows.
377. Vodafone data supports this intuition and shows that each off-net SMS causes at least [] **VNZRI** SMS in reply. In other words, if an SMS is sent off-net, an SMS will be sent in return with a probability of [] **VNZRI**. Crucially, this reply rate seems largely insensitive to price: despite evidence of significantly lower average on-net SMS rates in the market, the on-net reply rate is not substantially higher at [] **VNZRI**.
378. This is fundamentally different from voice communication where a two-way conversation can be achieved where only one party (the individual making the call) pays for the call and that party's network operator pays for termination. That is, for a single voice communication event, termination payments are only made in one direction.
379. Near balanced traffic for SMS termination means that the effective termination rate faced by a carrier is lower than the headline rate would imply. This is because each time a network operator pays a fee to terminate traffic on another carrier's network, it is likely to receive termination revenue from a reply text in return. That is, when a customer of one network sends an SMS to a customer on another network, the originating network will incur a termination fee. However, if termination fees are set on a symmetric basis, the originating network operator will automatically receive the full amount of payment in return revenue when the customer receiving the original text sends one back in return. When a carrier pays termination, therefore, it effectively gets a discount in the form of an SMS sent in reply and the associated termination revenue.

380. It follows, therefore, that the effective cost (P^{TE}) of terminating an off-net SMS on another carrier's network is:

$$P^{TE} = P^{TB} - a \cdot P^{TA}$$

where P^{TB} is the termination charge set by the network whose consumer receives the text

P^{TA} is the termination charge the originating carrier sets to receive a text; and

a is the average amount of texts received in reply to an off-net text

381. Given our data shows an off-net originated text tends to elicit a reply [] **VNZRI** per cent of the time, this implies an effective termination rate at existing headline rates of 9.5cpt of only [] **VNZRI** cpt. This effective price is not substantially different to the Commission's benchmark estimate of the cost of providing SMS termination.

382. This effect will occur regardless of market share because it is the nature of SMS that leads to traffic being balanced, not the market shares. Being a subscriber on a small network doesn't mean one no longer receives replies to SMS messages.

383. The low effective SMS termination rate for off-net texts may help explain why mobile network operators are currently able to offer cheap retail bundles of any-net SMSs. For instance, Telecom currently offers 1500 any-net SMS on its XT network for \$18 – an effective price per SMS of only 1.2cpt if the bundle is used in full. Similarly, we offer 600 any-net SMSs to our on account customers for only \$12.95 – implying an effective per SMS rate of a little over 2cpt if the bundle is used to its maximum.

384. Clearly, under the terms of the secret deal struck with 2degrees, it should expect to **profit** every time one of its customer's send a text to a Vodafone consumer. For instance, under current arrangements, 2degrees only pays Vodafone [

] **VNZCOI**. Assuming our

customers continue to respond to texts from other carriers [] **VNZRI** per cent of the time, 2degrees will actually make a profit of [

] **VNZCOI**. Logically, the rate

of reply from our customers to an off-net text from 2degrees would have to fall to around [

] **VNZCOI** per cent before it would start to [

] **VNZCOI** to us to

terminate traffic on our network. There is nothing in the history or nature of SMS traffic flows between our network and Telecom's network to suggest this would ever be the case on a long-term sustainable basis.

The Commission must revisit its market definition for SMS services

385. As with voice termination, the Commission believes that mobile operators have bottleneck control over SMS traffic that terminates on their network. This view appears, however, to rely on the notion that the only way a consumer can send a short data message to a consumer on another network is via an SMS message.
386. In reality, however, there are a number of other ways in which consumers can send short data messages between their mobile phones. For instance, at present there are several very close substitutes for SMS. These are all instant messaging services that fall into four categories:
- proprietary instant messaging (IM) like Blackberry PIN;
 - IM clients that run on top of Skype, gmail etc;
 - Skype, gmail etc IM service; and
 - social networking sites such as Face book, Twitter and Bebo.
387. The vast majority of these substitutes allow for message notification, and can be accessed by any web-enabled phone. From a consumer's perspective, there is little or no difference between sending an e-mail or instant message from their phone versus sending an SMS.
388. This has implications both at the wholesale and retail level. At the wholesale level, if a mobile operator seeks to set excessively high prices for SMS termination which have the effect of pushing up off-net SMS prices, then consumers will cease trying to contact their friends and colleagues via SMS and turn to cheaper alternative services. In other words, mobile operators could price themselves out of SMS termination revenue if they set off-net rates at excessively high levels in a way that forces up their rivals effective costs of providing off-net SMS services.
389. At the retail level, the existence of these SMS substitutes mean that mobile operators are unable to set excessively high prices for retail SMS services. As more and more consumers acquire handsets that enable them to send short data messages using these substitute mechanisms, mobile operators will be increasingly constrained in their ability to set high retail SMS prices.
390. To the extent that substitute services will apply increasingly greater competitive constraint on retail SMS pricing, it is less likely that regulation can achieve any additional meaningful benefits for consumers.

Retail market outcomes for SMS are already very healthy

391. There is limited justification for regulating a service that already has very low prices and high usage levels because the Commission simply cannot gain any substantial additional benefit for consumers in such an environment.
392. Forces are already at play in the retail mobile market that are seeing the price of both on-net and off-net SMSs coming down. Overall, average retail SMS prices in New Zealand have declined by 29 per cent on average in each of the last 5 years. Further, the volume of texts sent per customer has increased by 37 per cent over the same period.
393. In its Draft Report, the Commission suggests that while average prices have come down and volumes have gone up in New Zealand, this is mostly as a result of cheap on-net bundled offers – such as TXT2000, BestMate and Family. Vodafone agrees that these products have generated significant benefits for consumers.
394. It is also true, however, that prices have fallen considerably for off-net SMS services in recent years. This is because cheap bundled SMS offerings are not confined only to on-net consumers. For instance, Telecom has for a long time offered large bundles of off-net texts to pre-pay customers through its \$10TXT offering and has recently moved to low any-net pricing on its XT network. As discussed above, Vodafone also offers low any-net pricing to its on account customers via its TXT600 offering.
395. In addition, IM is available from a large number of sources at low cost to anyone that has a web-enabled phone. As set out above, IM is virtually indistinguishable from SMS.
396. Taking into account competition from substitutes as well as competition between operators in the market for SMS, the pressure on SMS prices is strong and will only be stronger in the future. This competition means there is no reason for the Commission to be concerned about SMS retail pricing. Consumer awareness and usage of data-based alternatives to SMS will increase. In terms of SMS retail pricing, these competitive pressures are much more influential than the level of the SMS termination rate.
397. In light of these trends, it is hard to see how regulation can further promote competition in a way that will apply greater pressure on prices for SMS services.

2degrees will be worse off under the Commission's proposed regulatory rates

398. Vodafone is disappointed that the Commission has not sought to model whether reductions in termination rates consistent with those set out in its Draft Report will actually generate a

material impact on the ability of a new entrant to enter and survive in the retail mobile market. We are also disappointed that it has done no analysis to compare whether 2degrees will be materially disadvantaged by the rates contained in the secret deal we struck with it in September 2008, as compared to the rates it is proposing under regulation. We believe this is a critical over-sight because:

- once it is recognised the nature of SMS communications means that traffic between interconnecting networks is likely to largely be in balance, then it becomes abundantly clear that regulated reductions in SMS termination rates will have minimal impact on the cash-flows of regulated parties (and hence limited opportunities for mobile operators to pass through any reduction in SMS termination rates to end-users); and
- the terms of the secret deal with 2degrees provide it with [] VNZCOI prices, meaning it is likely to *profit* more from the current arrangements than the prices contained in the Commission's regulatory factual scenario under reasonable assumptions of traffic flows between interconnecting networks.

399. Indeed, in our submission to the Commission's preliminary views, Vodafone provided analysis to the Commission that demonstrated under reasonable assumptions that:

- under the terms of the secret deal, 2degrees is likely to profit from SMS termination by approximately [] VNZCOI in 2009/10;
- under regulated rates of 1cpt, 2degrees is likely to make a net loss from SMS termination of approximately [] VNZCOI over the same period; and
- in order for 2degrees to make as big a profit under regulation as it should expect to make under the secret deal, it will need to generate a traffic imbalance of 140 per cent. That is, for every SMS its customers send a Vodafone customer, the Vodafone customer will have to send 2.4 texts back in return.

400. While these results are sensitive to the assumptions contained in the analysis, two points are abundantly clear:

- the impacts of reduced termination rates on mobile operators business are likely to be trivial compared to the costs of accurately determining a price for SMS termination under regulation; and
- in consequence, the size of net SMS termination payments made by interconnecting carriers are likely to be an insignificant part of their overall costs of running a mobile network business.

401. Before submitting the industry to a long and uncertain regulatory process, the Commission must commit itself to conducting a proper quantitative cost-benefit analysis to determine whether regulation is likely to give rise to material differences to the profitability of mobile operators business. The onus is on the Commission to justify intervention in the market. The case has not been made to date.

The efficient price for SMS termination is likely to be greater than TSLRIC+ because of spam

402. In its Draft Report, the Commission has concluded that the appropriate regulated price for SMS termination should be TSLRIC+. In doing so, however, it does not appear to have regard to the risk that very low SMS prices can encourage SMS spam.

403. Spam of any sort imposes a number of costs on consumers of identifying and deleting messages, being distracted from other activities by unwanted messages, and legitimate messages being mistakenly identified as spam. These costs will be magnified for SMS spam, as people tend to be near to their mobile phone most of the time and respond to message alerts quickly. If SMS spam becomes widespread, people will start to disregard new SMS message alerts, making it more difficult to contact people via text messages and reducing the value of the system as a means of communication.

404. Spam therefore imposes negative externalities on consumers. There is unlikely to be any social benefit from SMS spam, only costs. Even if the actual cost of SMS termination was zero, a termination rate set at a level that would prevent these external costs from being felt by consumers is optimal if it costs less than the cost of spam.

405. The French regulator ARCEP recognised the costs of SMS spam in its 2005 consultation on SMS termination (p.86):

The Authority acknowledges that if the tariff on an SMS reaches a very low level, close to being free, it would cause a high risk of spamming, i.e. sending of unsolicited messages. Ill-intentioned businesses could take advantage of the low cost of SMS Push to undertake profitable direct marketing campaigns, in violation of the principle that a customer shall not receive such messages without giving specific permission. In particular, it is unclear whether SMS providers are able to check their business partners or clients beforehand so as to prevent such practices.

406. Near zero termination charges for SMS make unsolicited SMS more likely. In contrast, higher SMS termination rates can act as an effective barrier to SMS spam because the reciprocity in communication that exists for legitimate SMS is absent for SMS spam. Since SMS spam messages will not usually elicit a reply, they will not be part of a two-way exchange of messages, and therefore will face a higher effective termination rate than non-spam

messages. In terms of our characterisation of the effective termination rate as $P^{TE} = PT^B - a \cdot PT^A$, a is close to zero for spam, so the effective termination rate for spam is close to the SMS termination rate on the receiving mobile operator's network.

407. Overall, there are good reasons for believing the price of SMS termination should lie above the TSLRIC+ of providing the service. Doing so will:
- not be likely to inhibit competition in the retail mobile market due to the two-way nature of SMS communications, and the probability that sending an off-net text will likely generate a reply text – thereby making the impact of above-cost termination rates on the cash-flows of interconnecting parties negligible; while
 - have the effect of discouraging SMS spam.
408. We believe the Commission should take this factor into account when determining the appropriate price for SMS termination – including in any pricing principle it may develop for a regulated SMS termination service.

Summary

409. In summary, Vodafone believes the market for SMS currently works. Retail prices – both for on-net and off-net traffic – are in rapid decline, while SMS volumes are growing strongly. New Zealand has some of the lowest SMS prices in the world, and some of the highest usage levels. Substitute services for SMS are emerging that are available on web-enabled phones that will apply even greater competitive pressure on mobile operators in years to come. Further, SMS spam is virtually non-existent here in New Zealand. In this context, the market for SMS services in New Zealand does not appear to be one that needs fixing.
410. SMS termination rates are not likely to be a barrier to entry for a new entrant. The nature of SMS communication means traffic flows are likely to largely be in balance – this has certainly been the practice in New Zealand in the past between Vodafone and Telecom. Even now, where Vodafone's SMS bundles for pre-pay users are on-net while Telecom's are off-net, traffic flows between our networks are largely in balance. Accordingly, net payments between Vodafone and any new entrant are likely to be insignificant.
411. Reducing the price of SMS termination to the Commission's estimates of the TSLRIC+ of providing the service is likely to cause more harm than it will cause good as:
- it will likely provide prices for new entrants that will make SMS interconnection less profitable for them; and

- remove a deterrent to SMS spam.

412. Why meddle with a market that works in order to set regulated prices that are unlikely to provide any discernible benefits either to new entrants or to consumers? Vodafone simply does not see the point.

Appendix One: Non-core-prices, non-price terms and other issues

413. The Commission provides in its draft report an assessment of the non-core-price issues, non-price terms and other issues.¹⁰⁸ In addition to the matters raised elsewhere in this submission, Vodafone provides comments on these issues and the Commission's preliminary views. These relate to:

- (A) minute + second / second + second pricing (rounding);
- (B) on-net / off-net price discrimination;
- (C) pass-through requirements;
- (D) internationally-originated calls;
- (E) VOIP-originated calls;
- (F) handover deductions and handover; and
- (G) process for reconciling non-price terms in the undertakings.

414. Our comments on each of these issues are set out, in turn, below.

(A) Minute + second / second + second pricing (rounding)

415. The Commission says that it is not required to determine the details of the pricing structure that will be applied for the proposed regulated service as part of its recommendation in the draft report. The Commission considers that the pricing structure is an implementation issue and will make a determination regarding pricing structure should MTAS become a regulated service. The Commission's preliminary view is that second + second pricing is likely to be preferable if mobile termination rates are to be regulated, and that adjustments would be needed to benchmarks and rates in undertakings where they involve minute + second pricing, to ensure that the rates remain comparable.

416. The Commission is interested in submissions addressing the significance and magnitude of call set up charges for mobile networks and parties' preferred approach to recovering call set up costs. Vodafone's responses are set out below.

Call setup

¹⁰⁸ Commerce Commission, *Draft MTAS report*, 30 June 2009, paras 882 - 950

417. A call can be divided into three distinct phases:

- setup;
- conversation; and
- release.

418. In the case of unsuccessful calls, there is no conversation or conversation time. There is still a setup and release phase, and network time.

419. Below is a simple explanation of how a call is set up and made (this example is for a mobile to mobile interconnect call):

- (1) Dialling - the A-party dials the number on their phone and presses send (the green button on the handset)
- (2) Call setup - MSC A sets up the call with MSC B, using dedicated signalling links between the two MSCs
- (3) Circuit seizure –successful call setup results in a voice circuit being seized end to end and the recipient’s phone starts ringing. Both radio networks are tied up from circuit seizure
- (4) Answer signal – the B-party answers the phone (by pressing the green button on the handset). For “ring but no answer” calls, there is no answer signal.
- (5) Release signal – either the A-party or the B-party ends the conversation by pressing the red end button on their phone

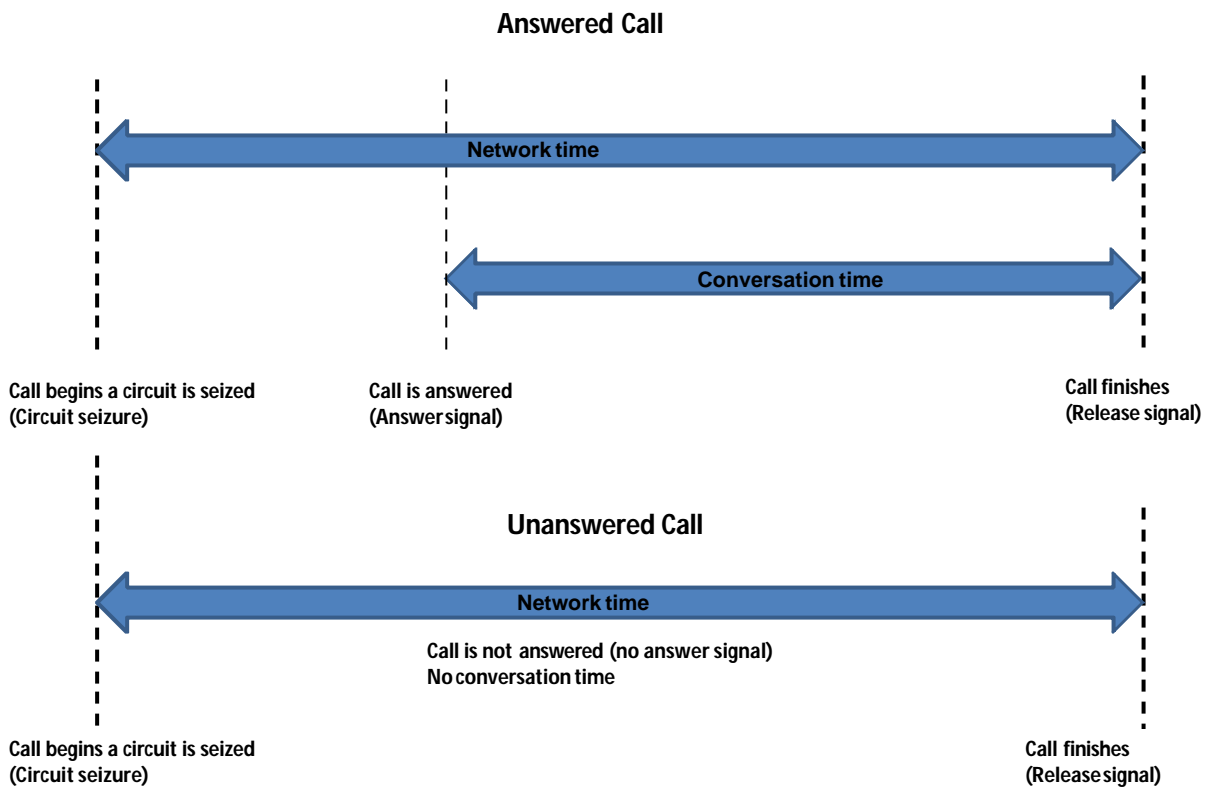
Types of call setup costs

420. There are three types of call setup costs for an MTAS call:

- the switching, signalling and other setup costs of the call, before a voice circuit is seized on the radio network (*call setup costs*);
- the radio airtime for the period of time before the call is answered (*ringtime*); and
- the radio airtime for setting up unanswered calls (*unsuccessful calls*).

Difference between Network Time and Conversation Time

421. The following figure shows the difference between network time and conversation time, for answered calls and unanswered calls:



Explanation of Efficiency Ratio

422. The *efficiency ratio* is the ratio of *conversation time* to *network time* in minutes. The difference between the two is call set-up time, and network time for unsuccessful calls.

Voice circuits are tied up (seized) on the radio network for a longer period of time than the actual conversation time.

In relation to individual calls, conversation time will be less than circuit-holding time by reason, in particular, of the extra time circuits are held because there will be a period between the seizure of the circuit and the answer signal.

In relation to overall use of the circuit, there will be additional holding time in case of inability to reach the distant subscriber.

Telecom data on Efficiency Ratio for MTAS calls

423. Telecom has provided data to the Commission¹⁰⁹ regarding the Efficiency Ratio for MTAS calls. This data shows that the Efficiency Ratio is 85.6%. That is, there are 856 seconds of conversation time for every 1,000 seconds of mobile network time used. The difference between the two is ringtime before successful calls are answered, plus the mobile network time used by unsuccessful calls.

Put another way, *network minutes* are 117% of *conversation minutes* for MTAS calls.

Explanation of circuit seizure, answer signal and release signal

424. The following is an explanations of some terms:

Circuit seizure – in simplistic terms, this is the point within the call setup at which the phone starts ringing. A 64k voice circuit is reserved and dedicated to the call from this point. In some overseas markets, charging starts from this point.

Answer signal – this is when the recipient answers the phone. In New Zealand, charging starts from this point. In the case of unsuccessful calls (e.g. “ring but no answer”), there is no answer signal and, in New Zealand, no charge for the network time associated with unsuccessful calls.

Release signal – this is when one of the parties ends the call, e.g. by hanging up.

Network time is the period of time the radio network is occupied, from circuit seizure to release signal

Conversation time is the period of time from answer signal to release signal

It is important to note that the *network time* is greater than the *conversation time*.

The *efficiency ratio* is the ratio of *conversation time* to *network time*.

Cost models and network minutes

425. Where cost models calculate a cost per *network minute*, this is not the same as a cost per *conversation minute*. Network minutes are significantly greater than conversation minutes.

¹⁰⁹ Telecom, *Submission Accompanying Revised Undertaking*, 6 May 2009, para 56.

NRAs have almost universally not regulated at cost model rates

426. Seven of the nine NRAs producing cost models relied upon by the Commission chose not to rely upon those cost model rates. The ACCC stated that “the ACCC considers that the WIK model provides an estimate of the TSLRIC+ [i.e. cost] of supplying the MTAS somewhat lower than that achievable in reality”¹¹⁰

In addition to the unrealistic nature of cost model estimates, Vodafone suggests that the significant difference between network minutes, and conversation minutes, may be a significant reason why NRAs have chosen not to regulate at cost model rates.

Ways of recovering call setup costs

427. There are a number of ways call setup costs could be recovered, including:

- a flagfall;
- minute plus second rounding;
- via the rate per minute ;
- charging from circuit seizure ; and
- charging for unanswered calls.

Recovery of call setup costs in the USA retail market

428. In the US, AT&T applies the following billing methodologies to its retail prepaid mobile plans¹¹¹:

- Charging begins from circuit seizure for outgoing and incoming calls, i.e. is based on network time;
- minute plus minute rounding (full minute increments); and
- charging for unanswered outgoing calls greater than 30 seconds duration.

Recovery of call setup costs in the New Zealand retail market

429. In New Zealand, the following retail charging methodologies are currently standard:

- charging begins from answer signal, i.e. is based on conversation time;
- minute plus minute, or minute plus second rounding;
- no charge for unanswered calls; and

¹¹⁰ ACCC, *Domestic Mobile Terminating Access Service Pricing Principles Determination and indicative pricing for the period 1 January 2009 to 31 December 2011*, March 2009, p18.

¹¹¹

http://www.wireless.att.com/cell-phone-service/legal/terms.jsp?q_termsKey=prepaidServiceAgreement&q_termsName=Service+Agreement

- no charge for answered calls of 2 seconds or less conversation time .

Factors to consider

430. The following factors are relevant to which method or methods of recovering call setup costs are preferable:

- how efficient the method is in signalling drivers of costs;
- minimising confusion and disruption to consumers;
- the costs (e.g. mediation and billing development, legal costs associated with contractual changes) of changing retail or interconnect billing methodologies; and
- the costs to the industry and ultimately end users of changing from one method to another.

Cost signals

431. If we were to take a “green fields” approach to recovering call setup costs, without any regard to current retail or interconnect practice, the costs of migration, or New Zealand end user preferences, the following suite of charging methodologies might arguably best reflect cost drivers, and therefore arguably give the most economically efficient signals regarding cost:

For successful calls:

- a flagfall charge per call to cover costs of call setup and release, such as switching, signalling etc; and
- a duration based charge per second of *network time* (not *conversation time*), i.e. charge from *circuit seizure* not from *answer signal*;

And for unsuccessful calls:

- a flagfall charge per call to cover costs of call setup and release, such as switching, signalling etc; and
- a duration based charge per second of *network time* (not *conversation time*), i.e. charge from *circuit seizure* not from *answer signal*.

Disruption for customers and network operators

432. Although such a suite of charging methodologies might give efficient signals regarding cost, the following factors must also be considered:

New Zealand end user preferences:

- New Zealand end users might believe it is unfair to introduce charges for unanswered calls, or may actually place a high value on the certainty associated with only being charged for answered calls; and
- New Zealand callers might believe it is unfair to introduce charges for call setup time (ringing time), during which time they are not able to have a conversation.

Costs to carriers to change from current interconnect billing arrangements:

- there would be significant costs for carriers for mediation and billing development to change from conversation time (using answer signal) to network time (using circuit seizure);
- there would be significant extra storage (hard disk) costs to store unanswered calls, where these are currently discarded for billing;
- Vodafone estimates the cost to the industry of such a change would be in the millions; and
- ultimately these costs would be borne by end users.

Costs to end users to change from current retail billing arrangements:

- there would be no benefit to consumers to change to different interconnect billing arrangements, if any efficiencies were not passed through to end users;
- there would be significant costs for carriers (and ultimately end users) for mediation and billing development to change from conversation time (i.e. using answer signal) to network time (i.e. using circuit seizure);
- there would be significant extra storage (hard disk) costs to store unanswered calls, where these are currently discarded for billing;
- Vodafone estimates the cost to the industry (and ultimately consumers) of such a change would be in the millions; and
- in addition, there would be significant disruption, confusion and cost for end users, to move to billing arrangements based on network time (including ringtime for unanswered calls), and explaining the difference between network time and conversation time.

Current minute plus second arrangement are an efficient way to recover call setup costs

433. To summarise three different options:

- The theoretical arrangements that would best signal cost drivers would be:

- to have a flagfall charge on both answered and unanswered calls, to cover switching, signalling and other call setup costs that occur before circuit seizure, as well as the release (tear down) of the call; and
- to charge for network time (i.e. to use circuit seizure as call start time instead of answer signal), for both answered and unanswered calls, on a second plus second basis
- Telecom has provided data to the Commission¹¹² regarding minute plus second rounding, compared to network time, for MTAS calls. The data shows that “Telecom charges for 1055 seconds for every 1000 seconds of mobile network time used”.

This data shows that the current MTAS interconnect arrangements, namely minute plus second rounding applied to conversation time, are a very good proxy for actual network time, especially considering there is currently no flagfall charge to cover the switching, signalling and other call setup costs that occur before circuit seizure. In other words, minute plus second rounding, when applied to conversation time, is only 5.5% (1055/1000) longer than second plus second measurement of network time.

- In contrast, if the current MTAS interconnect arrangements were changed to second plus second rounding (without changing from conversation time to network time, i.e. without changing from answer signal to circuit seizure for call start time and without billing for unanswered calls), then the data shows “there are 856 seconds of conversation time for every 1,000 seconds of mobile network time used”. This would represent a significant under-recovery of actual network time, in addition to not recovering switching, signalling and other call setup costs that occur before circuit seizure. In other words, if second plus second rounding were applied to conversation time, then the second plus second network time used would actually be 16.8% (1000/856) higher than the conversation time billed for. In addition, a flagfall charge would be required to cover the switching, signalling and other call setup costs of that occur before circuit seizure for answered and unanswered calls. These two factors would combine to a significant under-recovery of cost.

The difference between minute plus second, and second plus second rounding will reduce over time

434. Currently the average call duration for FTM calls is below the average call duration for local calls or national calls.

¹¹² Telecom, *Submission Accompanying Revised Undertaking*, 6 May 2009, para 56.

The average call duration for FTM and MTM calls can be expected to increase gradually over time. As interconnect and retail prices per minute drop over time, people will talk for longer (i.e. average conversation time for each call will increase), while ringing time for each call, and network time for each unanswered call, would be expected to stay relatively static over time.

As a result, the 5.5% figure above would be expected to reduce over time, and may become negative.

In other words, the current New Zealand interconnect arrangements of minute plus second rounding applied to conversation time, will become an increasingly closer proxy of second plus second network time.

Pass through issue – all carriers face call setup costs

435. All carriers (not just the terminating mobile carrier providing the MTAS service) face call setup costs:

- for example in a mobile to mobile call, the originating mobile carrier faces the same need to recover call setup costs, including the radio network time associated with ringtime on answered and unanswered calls;
- in a fixed to mobile call, the originating fixed operator faces call setup costs, for switching, signalling, and utilisation of the fixed network during ringtime on answered and unanswered calls; and
- in the case of fixed to mobile toll bypass calls, the toll bypass operator also faces call setup costs in the form of minute plus second rounding on the fixed origination leg from the Telecom PSTN.

It is important to note that changing MTAS rounding from minute plus second rounding to second plus second rounding is extremely unlikely to result in any pass-through in the form of second plus second rounding for consumers. This is because fixed and mobile operators still face call setup costs of their own, and are likely to recover these costs via prevailing retail minute plus second (or minute plus minute) rounding.

To illustrate this, currently carriers in New Zealand face second plus second interconnect termination costs for international calling, yet retail international calling is minute plus second or minute plus minute, because carriers face their own internal call setup costs, as well as minute plus second rounding on the origination leg of international toll bypass calls.

Benchmarks are based on a typical 3 minute call

436. Vodafone notes that the Commission's initial view is that an uplift / adjustment factor must be made to rates, if billing is to be based on minute plus second rounding. This approach is flawed, for three reasons:

- firstly, there is a significant difference between network time and conversation time ;
- secondly, if only applied to VFNZ, and not to all the countries being benchmarked, then the maths is flawed because a like for like comparison is not being made. To illustrate the issue, assume that a benchmarked country other than New Zealand had a flagfall charge in addition to a per minute rate, and there was an average MTAS call duration in that country of two minutes. Benchmarking is based on the cost of a three minute call, but the actual average interconnect rate charged in that country is higher than the benchmarking indicates; and
- thirdly, benchmarking enables a like for like comparison to be made across jurisdictions, based on a three minute call. It would be inappropriate to apply an uplift in the case of one country (New Zealand), without also calculating the appropriate adjustment for all the other countries, in order to make a valid like for like comparison.

It is also incorrect to make any adjustment for the effect of minute plus second rounding, for any calls greater than one minute duration. For calls greater than one minute duration, minute plus second and second plus second duration is identical. Therefore no uplift should be applied to the rate for calls greater than one minute duration. In relation to calls less than one minute duration, the call setup costs, i.e. the difference between network time and conversation time, is a very significant portion of the call time.

Summary of MTAS rounding issues

437. To summarise:

- network time is approximately 17% longer than conversation time ;
- it would lead to a significant under-recovery of network time, if second plus second billing were to be applied to conversation time ;
- the current New Zealand interconnect arrangements, where minute plus second rounding is applied to conversation time, is a very good proxy of actual network time;
- where cost models calculate a cost per minute of network time, it would be inappropriate to apply cost model benchmarks to billing based on conversation time; and

- in order to make a like for like comparison, any uplift factor or adjustment to New Zealand rates, would also have to be calculated and made for overseas rates. Or alternatively standard benchmarking methodology would have to be used to make a like for like comparison, which is based on a three minute call.

(B) On-net / off-net price discrimination

438. The Commission's preliminary view is that while undertakings may contain terms that prevent discrimination between on-net and off-net pricing, provided MTAS prices are cost-based, non-discrimination provisions are not required as part of the factual of regulation.

439. We refer the Commission to our submission of 13 February 2009 in relation to this point.¹¹³

(C) Pass-through requirements

440. The Commission's preliminary view is that undertakings are able to contain conditions that purport to affect the retail price of mobile services, including terms that require pass-through of reduced termination rates to end-users. The Commission expects that pass-through will occur in practice in the factual through the promotion of competition.

441. We refer the Commission to our submission of 6 May 2009 in relation to this point.¹¹⁴ Please also refer to our main submission, in relation to the level of pass-through which the Commission is expecting will occur in practice in the factual of regulation.

(D) Internationally-originated calls

442. The Commission does not consider that it has been provided sufficient information to demonstrate differences in costs for internationally-originated calls, and that the service description for MTAS should therefore include internationally-originated calls and SMS (where these are handed over at a MSC in New Zealand). In relation to the Minister's statement of economic policy, the Commission says that the approach in relation to internationally-originated calls is the only issue going to the substance of the MTAS investigation.¹¹⁵

443. The Commission's task, should it recommend regulation of MTAS, is to demonstrate that regulating the service will promote competition in telecommunications markets for the long term benefit of end users of telecommunications services in New Zealand.

¹¹³ Vodafone New Zealand Limited, *Telecommunications Act 2001: Submission on the Schedule 3A Undertakings provided on 12 January 2009*, 13 February 2009, pp 45 - 52.

¹¹⁴¹¹⁴ Vodafone New Zealand Limited, *Telecommunications Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, pp 26 – 27.

¹¹⁵ Commerce Commission, *Draft MTAS report*, 30 June 2009, para 42.

444. Vodafone does not consider that the Commission has yet demonstrated sufficient reason for including in the service description, and therefore regulating, internationally-originated calls and SMS.
445. The Commission must show that the regulation of internationally-originated calls and SMS would promote competition in telecommunications markets for the long term benefit of end users of telecommunications services in New Zealand. This is the question the Commission should seek to answer – not whether there is sufficient information to demonstrate differences in costs for internationally-originated calls.
446. Vodafone is of the view that the Commission has not analysed, or shown, how regulating internationally-originated calls and SMS could be for the long term benefit of end users of telecommunications services in New Zealand. We fail to see how applying similar termination services and charges to internationally originated traffic (including from GATS Member states) as domestically originated traffic could benefit end users in New Zealand. In fact, New Zealanders are likely to be disadvantaged because for many outbound destinations end users in New Zealand would not obtain the benefit of regulated rates set by the Commission (and overseas NRAs).
447. In summary, in relation to whether internationally-originated calls and SMS should be included in the service description for MTAS, the Commission has approached the issue in an incorrect way. It first needs to demonstrate that regulation would satisfy the statutory test.
448. In any case, the costs for internationally originating calls are higher as we set out in further detail below.
449. We also refer the Commission to our previous comments in relation to GATS.¹¹⁶ In short, we do not agree that the Minister's statement of economic policy requires internationally-originated calls and SMS to be included. Vodafone has therefore not amended its undertakings in relation to this point, and believes that internationally-originated calls and SMS should be removed from the service description in the draft Schedule 1 amendment.
450. We also note that the Commission must have regard to the specific terms, and limitations, of the GATS commitments. In particular, New Zealand's GATS commitments explicitly state that they are to "be applied only to the extent consistent with New Zealand's competition policy

¹¹⁶ Vodafone New Zealand Limited, *Telecommunications Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, pp 63 – 65.

regime"¹¹⁷, and the Act requires in Section 18 (1) that regulation be for the benefit of New Zealand end users and in Section 18 (2) that regard be had to efficiencies.

Internationally originating calls are a significant proportion of inbound calls

451. Approximately [] **VNZCOI** % of inbound minutes to the Vodafone mobile network originate from overseas.

IDD and MSRN calls

452. There are two types of inbound international calls:

- IDD (international direct dial) calls, where an international A-party has dialled a New Zealand number; and
- calls to MSRN (mobile subscriber roaming number) ranges which are used for visiting international roamers.

Additional costs for IDD calls

453. There are additional costs for IDD calls, which are handed over at Vodafone's Auckland MSC. In addition to the termination service which is from the MSC to the handset, calls have to be transported nationally from the Auckland MSC to other MSCs in Wellington and Christchurch. Conversely for nationally originating calls, Vodafone's standard interconnect terms require calls to be handed over at three different collection points nationwide, with the majority of calls terminating within the collection area where they are handed over to Vodafone.

Additional costs for MSRN calls

454. There are additional costs for MSRN international roaming calls. For example, VF maintains dedicated international signalling links to each of its [] **VNZCOI** international roaming partners in order to set up international roaming calls. These signalling links are additional to the signalling link with the carrier handing over the call.

International roaming is a competitive service

455. MSRN international roaming calls are part of Vodafone's international roaming service. International roaming is a competitive service. Vodafone does not have a monopoly over international roaming. 2degrees and Telecom (XT) have recently started competing for GSM / UMTS international roaming business and foreign networks are able to have more than one

¹¹⁷ See footnote 2 to the definition of Essential Facilities in New Zealand's GATS obligations

international roaming provider in New Zealand. The Commission should wait and see how the recent entry of 2degrees and Telecom into the GSM / UMTS international roaming market affects things.

456. In particular it should be noted that the foreign network is able to steer roaming calls to a preferred international roaming partner.

457. In addition, the individual visiting roamer is able to manually select (on their handset), and change at any time, which network they wish to roam on.

The following screen capture shows Telstra Australia's website pricing for international roaming to New Zealand¹¹⁸. Telstra Australia offers differential pricing depending on which network the end user roams on. The Telstra Australia end user is able to select via their handset, which network they wish to roam on. There is no termination monopoly.

GSM Operator	National Call ¹	Call to Australia ²	SMS ⁴	Video National Call ³	Video Call to Australia ⁵	Telstra charge to receive ⁶	Call Setup Fee	Incoming Call Airtime ⁴	Video Call Airtime ⁴
New Zealand Communications	\$1.73	\$1.61	\$0.58	-	-	\$0.64	\$0.40	-	-
Telecom New Zealand Limited	\$0.69	\$1.55	\$0.52	-	-	\$0.64	\$0.40	-	-
Vodafone NZ	\$1.73	\$3.34	\$0.58	\$1.73	\$3.34	\$0.64	\$0.40	-	-

Section 18(2) requirements

458. Vodafone notes that section 18 (2) of the Act requires consideration of the efficiencies that will result or will be likely to result from any act or omission. This would include, for example, the inclusion or exclusion of internationally originating calls in the service description of MTAS.

Separate retail market for IDD calls

¹¹⁸http://www.telstra.com.au/mobile/internat_roaming/country_info.cfm?tech=gsm&countryid=147&submit_gsm=Submit

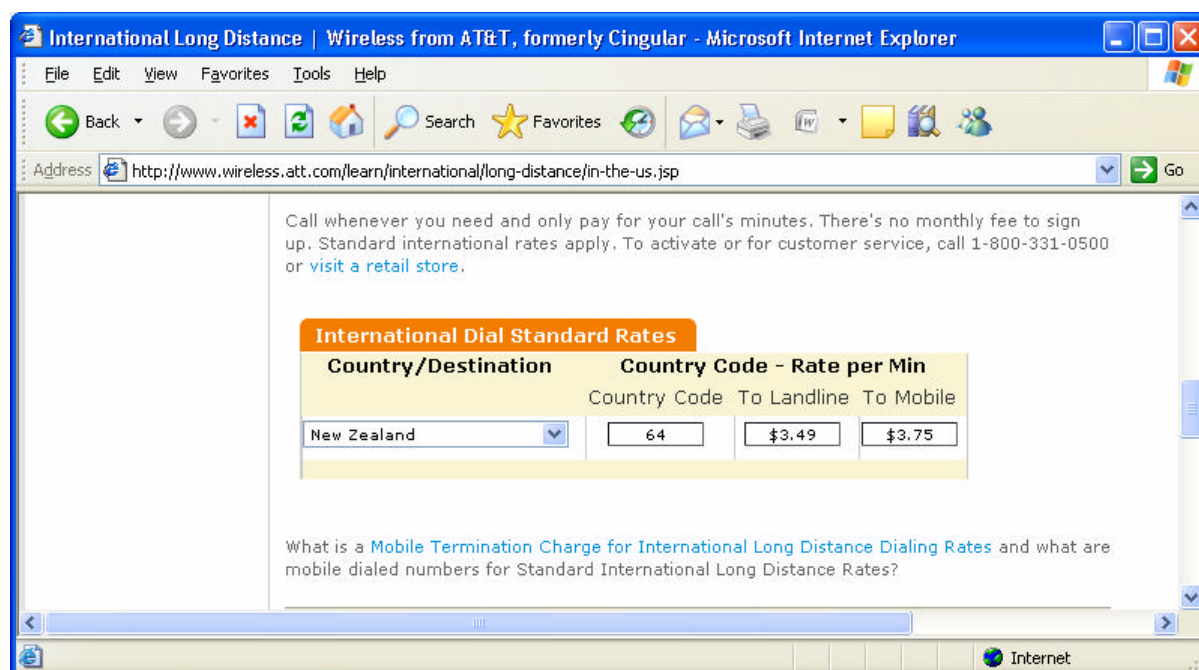
459. International calling from overseas to New Zealand is a clearly separate market to domestic FTM, and domestic MTM calling. Internationally originating calls are a significant proportion of inbound calls to the Vodafone network. Different pass-through assumptions are appropriate.

Different pass-through for IDD calls

460. New Zealand is a very small destination country in global population terms. Based on our small population (4 million versus a global population of 6 billion), calls to New Zealand account for less than 0.1% of global international calling.

The transaction costs for foreign networks to change retail billing rates, for such a small destination, mean that retail pass-through is very unlikely, and an assumption of 0% retail pass-through may be appropriate.

By way of example, AT&T Wireless's standard international dial rate from the USA to New Zealand mobile numbers is USD\$3.75 per minute. This is shown in the following screen capture from the AT&T Wireless website:¹¹⁹



¹¹⁹ <http://www.wireless.att.com/learn/international/long-distance/in-the-us.jsp>

461. The Commission's retail pass-through assumption of 85% in 2011 rising to 100% in 2015 is inappropriate for internationally originating calls, and internationally originating calls make up a significant portion of incoming minutes to the Vodafone network.

A significant proportion of inbound minutes to the Vodafone mobile network originate from overseas. Given the Commission has assumed that the waterbed effect may be up to 50%, it is highly likely that, for internationally originating calls, the detrimental waterbed effect will be significantly larger than the benefit to end users of reduced retail international calling rates. That is, the detrimental waterbed effect percentage will be greater than the beneficial pass-through percentage.

In addition, it should be noted that the waterbed effect will be detrimental for New Zealand end users, whereas any reductions in retail international calling rates will benefit foreign end users. Section 18 makes it clear that the intention of the Act is that regulation must be for the benefit of end users of telecommunications services in New Zealand.

Benefit to New Zealand end users

462. In summary, the issue with internationally originating calls is not whether the costs are different (which they are), but whether regulation of internationally originating calls would be consistent with the purpose of the Act and beneficial for New Zealand end users (which it is not).

Summary of Internationally originating calls issues

463. In summary:

- AT&T Wireless's standard international dial rate to NZ mobiles is USD\$3.75 per minute;
- a significant portion of inbound minutes to the Vodafone network originate from overseas;
- a different market analysis and different pass-through assumptions are required for internationally originating calls;
- costs of terminating internationally originating calls are higher;
- MSRN international roaming calls are part of a competitive international roaming service for which there is no termination monopoly; and
- New Zealand's GATS obligations specifically recognise that they are to be applied consistently with New Zealand's competition policy regime, which requires that regulation be for the benefit of New Zealand end users.

Internationally originating SMS

No market failure for SMS

464. SMS has not been regulated anywhere in the world apart from France, where the regulator set asymmetric rates of Euro 3.0 cents / Euro 3.5 cents.

Regulators around the world have concluded that SMS between networks, even of different sizes, is largely balanced, and SMS payments are therefore largely a “wash” i.e. balance out.

As we mention in the main body of our submission, the Commission has not completed a cost benefit model with respect to regulation of domestic SMS.

Lack of reciprocity

465. Market rates (Vodafone’s cost) for outbound international SMS sent via SMS hubs range from USD [] VNZRI cents to USD [] VNZRI cents depending on the destination.

Currently, negotiating power between international mobile networks, for exchange of international SMS, is largely balanced, due to the balanced traffic volumes, and the ability of both parties to set termination rates.

This balance in countervailing negotiating power would become unbalanced, if rates for internationally originating SMS were to become regulated, for New Zealand only, particularly at the rates proposed by the Commission, of NZ 1 cent, reducing to NZ 0.5 cents, when SMS rates everywhere else in the world are unregulated and significantly higher.

Due to the waterbed effect, the decrease in termination revenues for internationally originating SMS, without any corresponding decrease in the cost of outbound international SMS, would be hugely detrimental for New Zealand end users, and contrary to the purpose laid out in section 18(1) of the Act, and the requirement in section 18(2) of the Act to consider efficiencies.

Spam

466. SMS is a different service to email. One significant difference, and a significant benefit to New Zealand end users, is that SMS is largely spam-free at present. In contrast, over 99% of the emails which Vodafone end users receive are spam, and have to be filtered out. Spam filtering systems impose a significant amount of extra expense.

Higher costs for internationally originating SMS

467. By far the majority of SMS spam which Vodafone currently receives originates internationally. As a result of the costs of spam filtering, the cost of terminating internationally originating SMS is higher than that for domestic SMS.

Risk of increasing spam

468. Reducing SMS rates to very low rates of 1 cent reducing to 0.5 cents carries with it a risk that spam SMS levels will increase significantly. Currently spam is quite a small percentage of SMS, whereas spam accounts for over 99% of emails received by Vodafone end users.

Benefit to New Zealander end users

469. In summary, the issue with internationally originating SMS is not whether the costs are different (which they are), but whether regulation of internationally originating SMS would be consistent with the purpose of the Act and beneficial for New Zealand end users (which it is not).

(E) VOIP-originated calls

470. The Commission's preliminary view is that the service description for MTAS should include VOIP-originated calls and SMS, where these are handed over at a MSC in New Zealand. The Commission says it is not clear whether Vodafone's undertakings cover VOIP-originated calls.

471. Vodafone's undertakings include VOIP originated calls, provided that such calls are handed over to Vodafone as a circuit-switched call with a bandwidth of 64 kbits per second.¹²⁰

472. Vodafone agrees with the Commission's conclusion that the service description for MTAS should include VOIP-originated calls and SMS, where these are handed over at a MSC in NZ, provided that certain requirements are considered.

Caller identification

473. Caller id is a significant and useful feature for end users on mobile networks. VOIP-originated calls should accurately identify the identity and location of the caller via the A-number, in particular for the benefit of the recipient end user.

¹²⁰ See Vodafone Undertakings, definitions of "MTM Call" and "FTM Call"

Technical requirements

474. VOIP-originated calls should comply with relevant technical requirements, for example around end-to-end call setup, including allowing overflow routing, plus transmission of answer signal and release signal to ensure integrity of call duration measurements for interconnect billing and retail billing.

Handover of VOIP-originated calls

475. Interconnect termination is a switched service. Where the terminating MSC is a TDM-based switch, VOIP-originated calls should be handed over in the switch's TDM format.

Vodafone position

476. Subject to the above comments, Vodafone has no issue with VOIP-originated calls.

(F) Handover deductions, and handover

477. The Commission considers (i) that the service description for the MTAS service should provide that the access seeker will handover calls and SMS at a MSC; and (ii) that the handover deductions included by Telecom in its undertaking are not appropriate.

478. Vodafone agrees with both aspects of the Commission's preliminary view. We also refer the Commission to our submission of 6 May 2009 in relation to this point.¹²¹

Interconnection termination is a switched service

479. Interconnect termination is a switched service. The service is from the MSC to the handset.

480. Vodafone notes that Telecom Mobile, Vodafone, and 2degrees all have their MSCs located at Auckland, Wellington and Christchurch only.

481. Fixed operators and toll bypass operators tend to have their switches located in Auckland only, or in the case of TelstraClear, at Auckland Wellington and Christchurch.

482. There is no reason for handover arrangements for MTAS calls to be based around the 24 switching locations which Telecom uses to aggregate the 102 local calling areas in its PSTN.

¹²¹ Vodafone New Zealand Limited, *Telecommunications Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, pp 69 - 70

Contestable transport services

483. Where calls are handed over at a location other than the terminating MSC, a transport service is being provided in addition to the MTAS service.
484. So for example, if internationally originating calls are handed over outside of New Zealand (not at a New Zealand MSC), then an additional (contestable) transport service is being provided in addition to the MTAS service.
485. In the same manner, if nationally originating calls are handed over at a location not at the terminating MSC, then an additional (contestable) transport service is being provided in addition to the MTAS service.
486. For example, if Telecom wishes to hand over FTM calls originating in Hamilton, instead of at the terminating MSC in Auckland, then it is not appropriate for Telecom to reduce the rate paid to the Access Provider.
487. Instead, it is appropriate that Telecom should be given the choice of either handing over the call at the terminating MSC in Auckland (it can use its own transport network, or buy transport from another provider), or pay the Access Provider's contestable transport charges in addition to the MTAS charge.

(G) Process for reconciling non-price terms in the undertakings

488. The Commission's preliminary view is that a workshop, to resolve any remaining inconsistencies in non-price terms between undertakings, would only be appropriate if the Commission reached a view that some or all of the undertakings should be recommended for acceptance. The Commission will review the appropriateness of holding such a workshop following the submission, if any, of further revised undertakings at the time of submission on the draft report. The Commission's preliminary view is that any workshop would follow the conference.
489. Vodafone continues to believe that a workshop would be useful to resolve any remaining inconsistencies. We note that the conference has been used in other consultation processes as a forum to seek views and clarify non-price terms. Vodafone believes the Commission should use the conference as much as possible, to seek views and clarify any non-price issues.

Appendix Two – comments on the Commission’s market definition analysis

490. The Commission provides in its draft report an evaluation of the market definition which the Commission believes is appropriate to provide a framework within which competition can be assessed. It concludes that its preliminary view is that the following markets are relevant to the MTAS investigation:

- the national wholesale market for mobile termination access services on each mobile network (the “wholesale MTAS market”);
- the national retail market for mobile services, including mobile subscription and origination services (encompassing MTM calling, SMS, MMS and data services) (the “retail mobile services market”); and
- the national retail market for FTM and toll call services (the “retail FRM/tolls market”).¹²²

491. Vodafone has separately noted in this submission its concerns with the limited market definition analysis conducted by the Commission with regard to SMS termination services (and the retail substitute services that are now emerging to constrain retail pricing of SMS services). We do not intend to repeat these submissions again here.

492. With regard to voice termination, it is noteworthy that in reaching its conclusion that there is a separate national wholesale market for mobile termination access services on each mobile network, the Commission rejected Vodafone’s argument that a broader mobile services market, encompassing both wholesale mobile termination and retail mobile services was the more appropriate market definition in order to reflect the two-sided nature of mobile telecommunications markets. The Commission accepted that a two-sided market exists where there are two distinct user groups that provide each other with network benefits. However, it stated that the two-sided nature of the market “does not imply that mobile network operators are constrained when setting prices for termination on their networks” and that “[a]lthough MTAS is required in order to complete an end-to-end call, and therefore benefits both the calling party and the receiving party, it is only purchased by wholesale customers”.¹²³

493. Vodafone continues to maintain its view that the market definition framework proposed by the Commission is too narrow with respect to the product and functional dimensions. As

¹²² Commerce Commission draft report dated 30 June 2009, para 147

¹²³ Commerce Commission draft report dated 30 June 2009, para 131

previously submitted, Vodafone believes that the narrow market definition proposed by the Commission does not adequately take into account the fact that the service being provided by mobile operators combines both termination and other retail services which Vodafone do not believe are capable of separation. While MTAS may be directly purchased by wholesale customers only, it is the consumers (who are the ultimate beneficiaries of MTAS) which the Commission is charged with protecting and it is therefore the consumer side of the market that is the appropriate market to evaluate in relation to assessing competition. The Commission's focus, when defining the appropriate market definition should be on the nature of consumer behaviour and the existence of alternative sources of supply given what consumers demand.¹²⁴

494. The narrow market definition does not take into account some of the key characteristics of the telecommunications industry including the complementarity between services. It also runs counter to some of the main principles that should guide market definition, such as what services, or bundles of services, are in fact perceived by users as constituting viable alternatives in consumption and are being, or could be, offered by service providers.¹²⁵
495. The narrow market definition decomposes the overall, broader service into a collection of components which are not directly apparent to the end user. As suggested by Covec, in support of Vodafone's submission¹²⁶, no end user wishes to have access to telecommunications services without being able to receive calls from other networks. Accordingly, termination services and retail mobile services have very strong complementarity. If complementary effects are important, as they are with termination services, "the standard market definition approach will make sense only when applied to a system of services...a bundle of goods will constitute a system if the goods are complements"¹²⁷.
496. Vodafone considers that the strong complementarities in demand and the characteristics of supply in the telecommunications services market justify the analysis of market definition at the level of bundles of services. Additionally, as previously submitted¹²⁸, in terms of welfare analysis, confining attention to termination will lead to an incorrect assessment of the net

¹²⁴ Buigues P and Rey P (Eds), *The Economics of Antitrust and Regulation in Telecommunications: Perspectives for the New European Regulatory Framework* (Edward Elgar Publishing, 2004), page 65-66

¹²⁵ Ibid, page 66

¹²⁶ Covec, *Mobile-to-Mobile Termination Economic Issues*, 5 September 2008, p 4

¹²⁷ Buigues P and Rey P (Eds), *The Economics of Antitrust and Regulation in Telecommunications: Perspectives for the New European Regulatory Framework* (Edward Elgar Publishing, 2004), page 60

¹²⁸ Vodafone, *Submission on Schedule 3 Investigation into Regulation of Mobile to Mobile Termination Issues Paper*, September 2008, para 15

benefits of any proposed regulation. Without considering the mobile market as a whole, relevant potential detriments will be omitted from the analysis, which will bias the results towards finding benefits of regulation when in fact there may be none. Even if the Commission considers that there are other reasons to regulate mobile call termination, these reasons should not lead to a biased determination of the relevant market.