



COMMERCE COMMISSION

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**Final 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**

Final Report under clause 4 of Part 1 of Schedule 3 of the Telecommunications Act 2001.

The Commission: Dr Ross Patterson (Telecommunications Commissioner)
Anita Mazzoleni
Gowan Pickering

Recommendation of the Telecommunications Commissioner:

For the reasons set out in paragraphs 531 to 781, while there are grounds to recommend the mobile termination access services should be made a designated access service on the basis of the proposed regulatory change set out in paragraph 366 (the **proposed regulatory change**), the Telecommunications Commissioner recommends that the Final Undertakings are accepted under Schedule 3A of the Act as an alternative to the proposed regulatory change.

Views of two other members of the Commission:

Associate Commissioner Pickering concurs with the recommendations of the Telecommunications Commissioner.

Commissioner Mazzoleni's view is that the mobile termination access services should be regulated as a designated service on the basis of the proposed regulatory change set out in paragraph 366.

Date of Final Report: 22 February 2010

**CONFIDENTIAL MATERIAL IN THIS REPORT IS CONTAINED IN SQUARE
BRACKETS**

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List of abbreviations

| | |
|-------|--|
| ACCC | Australian Competition and Consumer Commission |
| ARCEP | Autorité de régulation des communications électroniques et des postes (French Telecommunications Regulator) |
| ARPU | Average revenue per user |
| BAK | Bill and keep |
| CBA | Cost-benefit analysis |
| CDMA | Code-Division Multiple Access |
| cpm | Cents per minute (unless otherwise noted, amounts are in New Zealand currency) |
| cpSMS | Cents per SMS (unless otherwise noted, amounts are in New Zealand currency) |
| EC | European Commission |
| EETT | Hellenic Telecommunications and Post Commission (Greek Telecommunications Regulator) |
| EU | European Union |
| FPP | Final Pricing Principle |
| FTM | fixed-to-mobile |
| GDP | Gross Domestic Product |
| GSM | Global System for Mobile communications |
| IPP | Initial Pricing Principle |
| ITU | International Telecommunication Union |
| LRIC | Long Run Incremental Cost |
| MED | Ministry of Economic Development |
| MNO | mobile network operator |
| MMS | multi-media-message-services |
| MTAS | mobile termination access services, incorporating MTM voice termination, FTM voice termination and SMS termination |

| | |
|--------|---|
| MTM | mobile-to-mobile |
| MTR | Mobile Termination Rate |
| NZD | New Zealand Dollar |
| Ofcom | Office of Communications – regulator for UK communication industries |
| POI | Point of interconnection |
| PPP | Purchasing Power Parity |
| PSTN | Public switched telephone network means a dial-up telephone network used, or intended for use, in whole or in part, by the public for the purposes of providing telecommunication between telephone devices. |
| SMS | short-message-service |
| STD | Standard Terms Determination |
| TSLRIC | The forward-looking costs over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, the service, taking into account the service provider's provision of other telecommunications services, including a reasonable allocation of forward-looking common costs. |
| UCLL | Unbundled Copper Local Loop |
| 2G | Second generation cellular network, characterised by digital transmission rather than analogue used by the first generation of cellular networks. |
| 3G | Third generation cellular network, based on the IMT 2000 set of radio technology standards as recognised by the ITU. |

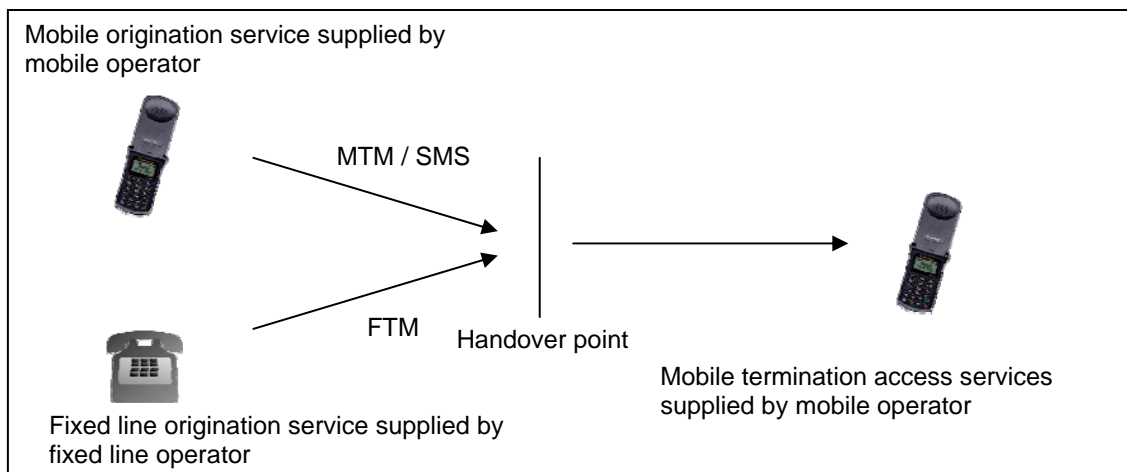
Terms used in this Final Report and not otherwise defined have the meaning given to them in the Telecommunications Act 2001 (unless the context otherwise requires).

EXECUTIVE SUMMARY

Introduction

- i. In the mobile termination access services (**MTAS**) Investigation the Commerce Commission (the **Commission**) has considered whether or not to recommend to the Minister for Communications and Information Technology (the **Minister**) that the MTAS should become a regulated service under the Telecommunications Act 2001 (the **Act**).¹ As part of the MTAS Investigation the Commission has also considered whether the Final Undertakings submitted by Telecom and Vodafone² should be recommended for acceptance as an alternative to regulation.
- ii. This Final Report provides the recommendations of the Telecommunications Commissioner and the views of two other members of the Commission, as required under section 10(1)(b) and clause 4(3)(d) of Schedule 3 of the Act. These recommendations, views and the reasons, are set out immediately following this Executive Summary.
- iii. The MTAS is a wholesale input used by fixed-line and mobile networks to complete calls and short-message-service (**SMS**) to other mobile networks. For the purposes of this Investigation, MTAS incorporates mobile-to-mobile (**MTM**) voice termination, fixed-to-mobile (**FTM**) voice termination and SMS termination.
- iv. The MTAS is depicted in Figure 1 below. The call or SMS originates on the fixed or mobile network to which the calling party is connected. The call or SMS will at some stage be handed over to the mobile network on which the receiving party is located, and will be ‘terminated’ or completed on that network.

Figure 1: Mobile termination access services



- v. Adding the MTAS as a regulated service under the Act would enable the Commission to set the prices and terms on which mobile network operators (**MNOs**), such as Vodafone, Telecom and 2degrees terminate calls and SMS on their networks.

¹ The Commission has concluded that the format of regulation to be considered is designation, which would involve setting both price and non-price terms for the MTAS.

² Telecom’s Undertaking of 11 February 2010 and Vodafone’s Undertaking of 16 February 2010, collectively referred to as the **Final Undertakings**.

- vi. Currently the terms and prices on which the MTAS are provided are governed by Deeds entered by Telecom and Vodafone, and commercial interconnection agreements.
- vii. This Executive Summary sets out the Commission's conclusions in relation to the MTAS Investigation. Detailed reasons for these conclusions are set out in the body of this Final Report.

Market definition and competition assessment

- viii. The Commission has concluded that the following markets are relevant to the MTAS Investigation:³
 - the wholesale MTAS market;⁴
 - the retail mobile services market; and
 - the retail FTM/tolls market.
- ix. The Commission has concluded that mobile network operators (**MNOs**) are subject to limited competition in the wholesale market for MTAS on their respective networks (paragraphs 334 to 335 of this Final Report).
- x. In the retail mobile services market, the Commission notes that the entry of 2degrees into the market is a positive development. However, the Commission still has a number of competition concerns in relation to this market.
- xi. The larger MNOs often set retail prices for calls and SMS that remain on the same network at a level that is considerably lower than for calls and SMS between networks (referred to as **on-net discounting**). Such on-net discounting makes it more attractive for subscribers to belong to a large network.
- xii. The Commission has concluded that a combination of wholesale mobile termination rates (**MTR**)⁵ that are significantly above cost, with significant on-net discounting, creates a barrier that restricts the ability of a small entrant MNO to compete with the larger MNOs. This conclusion applies to both MTM voice and SMS services.
- xiii. The Commission has also concluded that, faced with this barrier, the entry of 2degrees is unlikely to materially constrain the other MNOs in the retail mobile services market in New Zealand.
- xiv. The competition problem that the Commission has identified in the retail FTM / tolls markets is the barrier to competition created by above-cost MTRs. The difficulties faced by fixed-only operators in supplying FTM calls are particularly evident where integrated operators have offered retail FTM prices close to or below the wholesale MTRs.

³ See paragraph 122 for the full definitions of the markets assessed in this Final Report.

⁴ MNOs and fixed network operators must purchase the wholesale service of MTAS to be able to provide their customers with the ability to make calls or send SMS to the customers of other MNOs.

⁵ The wholesale charge to terminate calls and SMS on a mobile network.

Summary of Final Undertakings and likely outcomes under regulation and without regulation

- xv. For the purposes of this Schedule 3 Investigation, the Commission has used a range of cost benchmarks in order to determine the likely MTRs that would be set under regulation. The Commission considers that cost-based MTRs for FTM and MTM in New Zealand are likely to lie within a range of between 5.4cpm and 8.3cpm.⁶ The Commission has also allowed for a reduction in these costs over time during the five year period being considered.
- xvi. The Commission's assessment has considered two scenarios in relation to glide-paths:⁷ one in which the cost-based MTR is achieved immediately on the completion of the STD, which is assumed to be from the start of 2011 (ie no glide-path); and, one in which the cost-based MTR is achieved from the start of 2012 (ie a regulatory glide-path of 12 months).
- xvii. The SMS termination rates offered by Vodafone and Telecom have also been reduced during this investigation. The current wholesale SMS termination rate is 9.5 cpSMS. The wholesale termination rates for SMS contained in the Final Undertakings are 0cpSMS where traffic is within 7% of balance; 2cpSMS for traffic balances of 7% to 12%; and 4cpSMS for traffic imbalances in excess of 12%.
- xviii. Based on benchmarking, the Commission has used a cost-based MTR for SMS termination of 0.95 cpSMS as the likely outcome under regulation, reducing over time.
- xix. Figure 2 and Table 1 illustrate the differences between the MTRs for voice that were offered under the Final Undertakings, compared to the MTRs that are likely to apply under regulation and the MTRs that would likely to be charged without regulation.⁸

⁶ The Commission's benchmarked MTRs, for voice and SMS, relate to benchmarked MTRs for 2009.

⁷ A glide-path is a regulatory provision for a transition from one price to another.

⁸ Figure 2 and Table 1 do not include the terms of commercial interconnection agreements (ICA), such as the 2degrees / Vodafone ICA. The terms of ICAs have, however, been considered as a part of the assessment in this Final Report.

Figure 2: Comparison of MTRs for voice under the Final Undertakings, and likely outcomes under regulation and without regulation (all rates on a second+second basis)

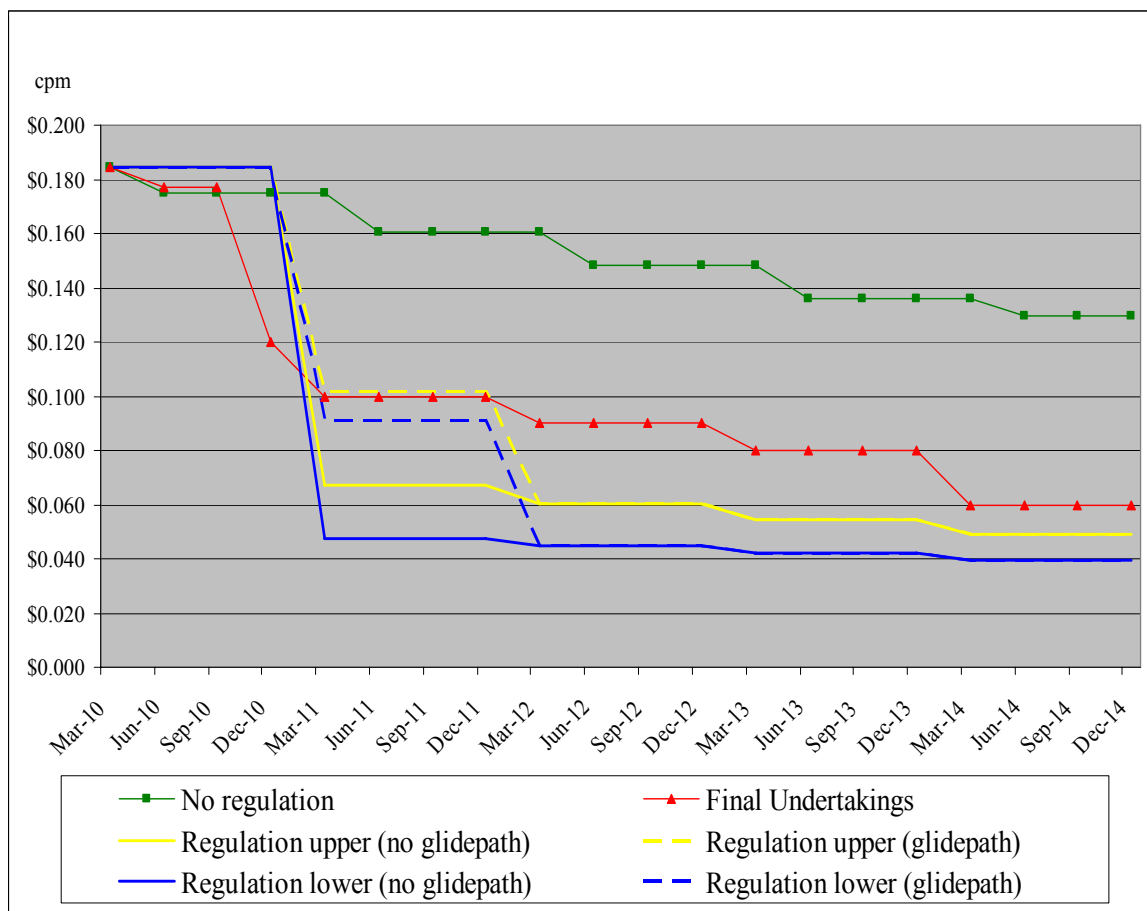


Table 1: MTRs for voice under the Deeds and Final Undertakings, and likely outcomes under regulation and without regulation (all rates on a second+second basis)

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|--|-------|-------|-------|-------|-------|
| Existing FTM Deeds | | | | | |
| Telecom Deed | 17.53 | 15.38 | 14.76 | n/a | n/a |
| Vodafone Deed | 17.90 | 17.34 | 16.30 | n/a | n/a |
| Final Undertakings | 16.47 | 10.00 | 9.00 | 8.00 | 6.00 |
| Likely outcomes under regulation | | | | | |
| Upper bound (no glide-path) | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 |
| Upper bound (with glide-path) | 18.45 | 10.18 | 6.05 | 5.45 | 4.90 |
| Lower bound (no glide-path) | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 |
| Lower bound (with glide-path) | 18.45 | 9.14 | 4.49 | 4.22 | 3.96 |
| Likely outcome without regulation | 17.72 | 16.42 | 15.14 | 13.91 | 13.11 |

Assessment of whether there are grounds to recommend regulation of the MTAS

- xx. The Commission has assessed whether regulation of the MTAS (at prices based on benchmarking the costs of providing the MTAS in other countries⁹) or the outcomes that would likely occur without regulation, based on current MTRs, would best or be likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.
- xxi. Based on this assessment, the Commission has concluded that there are grounds for recommending regulation of the MTAS,¹⁰ as regulation is likely to promote competition in both the retail mobile services market and the retail FTM/tolls market, and will produce significant net long-term benefits for end-users in New Zealand.
- xxii. The Commission has concluded that regulation is likely to remove the barrier to efficient entry and expansion in the retail mobile services market described above, and will allow an entrant MNO such as 2degrees to vigorously compete for subscribers. (The estimated benefits in the retail mobile services market are set out in paragraphs 628 to 646 of this Final Report).
- xxiii. The Commission has also concluded that regulation of the MTAS is likely to promote competition in the retail FTM/tolls market by enabling fixed-only operators to compete more effectively with integrated fixed-mobile network operators, and result in more competitive outcomes for end-users. (The estimated benefits in the retail FTM/tolls market are set out in paragraphs 691 to 706 and Table 25 of this Final Report).

Assessment of whether undertakings should be recommended for acceptance as an alternative to regulation

- xxiv. Having concluded that there are grounds to recommend regulation, the Commission has then assessed whether regulation of the MTAS (at prices based on benchmarking the costs of providing the MTAS in other countries) or the Final Undertakings offered by Telecom and Vodafone (summarised at paragraphs 783 to 835 and Table 31 of this Final Report), as an alternative to regulation, would best or be likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.

⁹ The Commission has benchmarked against the costs of providing the MTAS, based on a forward-looking cost-based methodology, rather than against regulated prices. The Commission's final benchmarking set is provided in Table 13 of this Final Report.

¹⁰ The full text of the proposed regulatory change that the Commission has assessed in this Final Report is set out in paragraph 366.

Recommendations of the Telecommunications Commissioner and views of two other members of the Commission

- xxv. Section 10(1)(b) of the Act and clause 4(3)(d) of Schedule 3 of the Act require that this Final Report include the Telecommunications Commissioner's recommendation and the views of two members of the Commission (other than the Telecommunications Commissioner) regarding the recommendation. These are set out in the *Recommendations and Reasons* section of this Final Report.

RECOMMENDATIONS AND REASONS

Introduction

- xxvi. In this Recommendations and Reasons Section, the Commission sets out its recommendations as to whether:
- there is a case for regulation of the MTAS; and
 - if so, whether the Final Undertakings are acceptable as an alternative to regulation (together with any of the recommendations open to it pursuant to the Act).

Framework for assessment

- xxvii. The Act requires the Commission to make recommendations in the MTAS Investigation which it considers best gives or are likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.¹¹ In making these recommendations, the Act requires that the Commission consider the efficiencies that will result, or will be likely to result, from its proposed recommendations, as well as submissions received.
- xxviii. When faced with possible recommendations which the Commission is satisfied may each promote competition in telecommunications markets for the long-term benefit of end-users, it must make the recommendation which it considers best or is likely to best give effect to the stated objective of promotion of competition.

Recommendation of the Telecommunications Commissioner

- xxix. For the reasons set out in paragraphs 531 to 781, while there are grounds to recommend the mobile termination access services should be made a designated access service by adding the item set out in paragraph 366 to Subpart 1 of Part 2 of Schedule 1 of the Act (the **proposed regulatory change**), I recommend that the Final Undertakings are accepted under Schedule 3A of the Act as an alternative to the proposed regulatory change.

Reasons of the Telecommunications Commissioner

- xxx. For the reasons set out in this Final Report and outlined below, I am of the view that acceptance by the Minister of the Final Undertakings is likely to best give effect to the purpose of promoting competition in telecommunications markets for the long term benefit of end-users of telecommunications services within New Zealand.

Glide-path

- xxxi. As my assessment, in paragraphs xxxvii to liv, has taken into account the effect of a glide path on the Commission's analysis of the proposed regulatory change and the Final Undertakings in this Final Report, I have set out my views on the appropriateness of a glide path for the MTAS Investigation in the following paragraphs.
- xxxii. I have considered the effect of a regulatory glide-path on the analysis of the factual of regulation. Glide-paths are commonly used by regulators to balance the short term welfare

¹¹ See sections 18 and 19 of the Act.

gains of immediate price reductions with the long term interests of protection of efficient investment incentives. Glide paths allow time for operators and customers to adjust to new price levels and structures,¹² and allow operators sufficient time to unwind business decisions made in reliance on a previous regulatory approach.¹³ It is unusual for regulators to impose new pricing without a glide-path.¹⁴

- xxxiii. In considering whether a glide-path would be appropriate for New Zealand, I have taken into account specific New Zealand conditions, discussed at paragraph 516.
- xxxiv. In weighing these factors, I conclude that where there is a transition from one ‘quasi-regulatory’ regime (i.e. under the Deeds) to another ‘regulatory’ regime (ie under regulation), all other things being equal, a three year glide-path would be appropriate. In this case, however, having regard to the specific market conditions described at paragraph 516 I would reduce the glide-path to 2 years. Under the Schedule 3 process, the new regulatory regime is not expected to come into effect for a period of approximately 12 months. I would regard this ‘forbearance’ year as the first year of the glide-path (ie from 2010 to 2011 - which would involve a two-thirds reduction to a cost-based level, as discussed in paragraph 518). The regulatory period would then have a one year step representing the remaining one third reduction (ie from 2011 to 2012). This is the ‘regulatory glide-path’ scenario set out in this Final Report.
- xxxv. In coming to this view, I have placed significant weight on the fact that business decisions have been made by operators based on the agreement reached in 2006 (as reflected in the Deeds). In this case, it is in the best long term interests of end users that a transition period be allowed where investment and other decisions have been made on the basis of an existing regulatory regime.
- xxxvi. In the assessment that follows, I have therefore had regard to the analysis in this Final Report that relates to the scenario that includes a regulatory glide-path.

Assessment

- xxxvii. As set out in paragraph 781 of this Final Report, the Commission has concluded that ‘when compared to the prevailing MTRs (and those which are estimated to apply in the future in the absence of regulation) cost-based regulation of the MTAS is likely to promote competition in both the retail FTM/tolls market and the retail mobile services market, and produce significant net long-term benefits for end-users in New Zealand.’
- xxxviii. In Section VI of this Final Report, the Commission has compared cost-based regulation of the MTAS with the Final Undertakings, for the purposes (as provided by clause 3 of Schedule 3A) of deciding whether to accept an undertaking and recommend that the Minister accept the undertaking, together with any of the recommendations listed in clause 3(2)(b) of Schedule 3A. To make such a recommendation, the Commission must be of the opinion that acceptance of the Final Undertakings would better give effect to the purpose set out in section 18 than cost-based regulation.

¹² Ofcom, *Mobile call termination statement*, 27 March 2007.

¹³ ACCC, *Mobile Services Review: Mobile Terminating Access Service – Final decision on whether or not the Commission should extend, vary or revoke its existing declaration of the mobile termination access service*, June 2004.

¹⁴ Analysys Mason, *Final report for Vodafone: Assessment of the position of the Commerce Commission of New Zealand in determining MTAS prices*, 27, July 2009

- xxxix. In my view, the first threshold question to consider in deciding whether to recommend acceptance of the Final Undertakings is whether the competition issues which the Commission identified in the Draft Report and throughout the MTAS Investigation would be addressed if the Final Undertakings were accepted. The Commission has concluded its concerns would be addressed by cost-based regulation; clearly if those concerns remained unaddressed with the Final Undertakings in place, it could not be said that acceptance of the Final Undertakings would better meet the purposes of section 18 than cost-based regulation.
- xl. In the MTM market, the competition issue of concern to the Commission was the combination of above cost MTRs and significant on-net discounting, where over 80% of MTM voice traffic and a higher proportion of SMS traffic was on-net, which had the effect of limiting an entrant's ability to compete effectively. The Commission has concluded at paragraph 806 that while the MTRs in the Undertakings 'exceed the Commission's benchmark range of cost-based MTRs, the MTRs in the Undertakings generally lie within the range of estimated on-net rates over the period. This indicates that a small entrant such as 2degrees should be able to offer retail off-net MTM services - where it originates the call on its own network, and terminates the call on Vodafone's or Telecom's network at the MTR contained in the Undertaking - at prices that are comparable to the average retail on-net prices of Telecom and Vodafone.'
- xli. The conclusions at paragraph 806 are premised on an assumption that on-net rates will fall by an amount of 5% annually for the next five years. I am satisfied that the assumption of a 5% annual reduction in retail on-net prices in New Zealand is reasonable. As noted at paragraphs 617 to 627, while there may be more significant reductions in retail off-net prices, I do not think that a steeper fall in retail on-net prices is likely in the current New Zealand market..
- xlii. Further, when comparing benchmarked MTM rates in this Final Report with the Final Undertakings (such as in Figure 24), I do not consider that the differential is sufficiently material to warrant rejection of the Final Undertakings, having regard to my conclusion that the MTRs in the Final Undertakings will allow a small entrant to compete with the average retail on-net prices of Telecom and Vodafone.
- xliii. In relation to SMS, the Final Undertakings offer a Bill and Keep pricing structure, with the actual MTR payable dependant on the traffic imbalance between networks. If traffic is balanced, or within an imbalance of 107%, no termination fee is paid. As noted in paragraph 814, even at a traffic imbalance of 145%, the average termination rate paid under the Final Undertakings would be 0.98cpSMS, compared with the Commission's cost-based benchmark of 0.95cpSMS.
- xliv. 2degrees has in its submissions to the Commission characterised SMS as 'a key platform to market entry'¹⁵ and 'an essential mechanism for market entry'.¹⁶ At the MTAS conference 2degrees explained that 'SMS is critically important for us to get into the market because what you find is that the mobile services that are offered in New Zealand are a combination of voice and text.'¹⁷

¹⁵ 2degrees, Submission on Draft Report, page 8.

¹⁶ Ibid para 1.19.

¹⁷ Transcript p105, 123 – 125.

- xliv. A termination charge of zero up to a 107% traffic imbalance, and which does not reach the level of the Commission's cost-based benchmark until an imbalance of 145% (which early indications of traffic imbalance suggest are unlikely to be reached) would remove any likelihood of the continuation of the foreclosure effect of on-net SMS bundles referred to by 2degrees.¹⁸
- xlvi. The Commission accordingly concluded at paragraph 823 that ‘the MTM and SMS termination rates proposed by Telecom and Vodafone in the Final Undertakings should enable a small entrant such as 2degrees to enter and expand in the retail mobile services market.’
- xlvii. In relation to the FTM market, the competition issue of concern to the Commission was that above-cost MTRs have the potential to place non-integrated fixed line operators at a significant competitive disadvantage in the retail FTM/tolls market, as it creates the potential for integrated operators to effectively cross-subsidise the provision of fixed-line services. While the rates in the Final Undertakings are higher than the Commission's benchmarks, the Commission has concluded, as set out in paragraph 833 that the reductions provided by the Final Undertakings will likely enable a non-integrated fixed line operator to compete with the current retail on-net prices, such as those offered by Vodafone.¹⁹
- xlviii. The analysis in Section VI of this Final Report shows that, in the FTM market, if the factual included a regulatory glide-path as discussed in paragraph 518, as I believe it should, the Commission’s modelling suggests that the Final Undertakings would deliver between 78% and 99% of the consumer surplus benefits of regulation, and between 88% and 102% of the total surplus benefits of regulation.²⁰ The percentage of benefits of regulation differ depending on whether one adopts the upper or lower bound benchmark and a 0% or 25% waterbed effect. For example, adopting the upper bound benchmark with a 25% waterbed effect, the FTM MTRs in the Final Undertakings would deliver 99% of the consumer surplus benefits and 102% of the total surplus benefits of regulation.²¹ In my judgment acceptance of the Final Undertakings will in the longer term deliver greater benefits to end-users of telecommunications services generally compared to the short term static benefits suggested by the FTM model.
- xliv. Further, when comparing benchmarked FTM rates in this Final Report with the Final Undertakings (such as in Figure 25), I do not consider that the differential is sufficiently material (particularly having regard to my views in paragraph xlviii) to warrant rejection of the Final Undertakings, having regard to my conclusion that the reductions provided by the Final Undertakings will likely enable a non-integrated fixed line operator to compete with the current retail on-net prices, such as those offered by Vodafone.
1. It is therefore clear that the competition concerns identified by the Commission would be addressed in a timely manner by acceptance of the Final Undertakings. It being the case that both cost-based regulation and acceptance of the Final Undertakings will address those competition concerns, it is necessary to consider which of those two options will better meet the section 18 purpose of promoting competition in telecommunications

¹⁸ 2degrees, Cross Submission on Draft report, pages 29-33

¹⁹ See paragraph 831 for an example of such retail on-net FTM prices.

²⁰ Under constant elasticity demand conditions.

²¹ Under constant elasticity demand conditions.

markets for the long term benefit of end users of telecommunications services within New Zealand.

- li. As a general principle, it is recognised that it is the operation of competitive forces which provides the best allocation of economic resources, and delivers the lowest prices, highest quality and greatest consumer choice. Regulation is imposed to attempt to replicate competitive outcomes in markets where competitive pressures are weak or non-existent. Where regulatory intervention is required, it is in my view in the best long term interests of end users that the least intrusive means to address an identified problem is applied, so that market forces can continue to operate in areas outside the scope of the intervention. This concept is recognised in Europe in the concept of proportionality (any regulatory intervention should be proportionate having regard to the issue being addressed and the options available to address the issue). In my view, a proportionate intervention in the MTAS market by acceptance of Final Undertakings which I am satisfied address the Commission's concerns will best promote competition for the long term benefit of end users. Such an intervention will provide greater certainty to end users and the industry in a faster timeframe than regulation can offer and without the inherent risks often associated with any regulatory process.
- lii. It is also in the long term interests of end-users in all telecommunications markets in New Zealand that the undertakings regime in Schedule 3A is effective, and that operators know that undertakings are likely to be accepted by the Commission if they address competitive concerns identified by the Commission in future Schedule 3 investigations. As noted in the Explanatory Note to the Telecommunications Amendment Bill, the process was described as an alternative mechanism that avoids the need for regulation. In my view, a conclusion in this case that regulation would better meet the section 18 purpose than acceptance of the Final Undertakings on offer, when I am satisfied that the Final Undertakings address the Commission's competition concerns, would undermine the undertakings process and consequently would not best serve the promotion of competition for the long-term benefit of end-users.
- liii. An industry solution which addresses the competition concerns which the Commission has identified is in my view to be preferred to regulation. In this case a number of undertakings were received from mobile operators over the course of the regulatory process. Earlier undertakings did not address the competition issues, and in the Draft Report none of them were recommended for acceptance. Now that the Final Undertakings do address the competition concerns, it is appropriate in my view that they be accepted by the Commission, and be recommended for acceptance by the Minister in accordance with clause 3(2)(a) of Schedule3A.
- liv. In summary, I am satisfied that the Final Undertakings will best address the competition concerns identified by the Commission. Under those circumstances, a more intrusive intervention (such as recommending regulation) is neither necessary (to address those concerns) nor in the best interests of giving effect to the promotion of competition for the long term benefit of end users.

Views of Associate Commissioner Pickering

- lv. I fully concur with the recommendations of the Telecommunications Commissioner in paragraph xxix and his reasoning, as set out in paragraphs xxx to liv above.

Views of Commissioner Mazzoleni

- lvi. I fully concur with the analysis set out in this Final Report. However I do not concur with the recommendation to accept the Final Undertakings from Vodafone and Telecom. My view is that the MTAS should be added to the Act as a designated service. In my view, for the reasons set out below, regulation as a designated service is the outcome that will best promote competition in telecommunication markets for the long term benefit of end users, and therefore the one that meets the statutory test.
- lvii. The case having been made for a regulated outcome, as fully set out in this Final Report, my comments are limited only to assessing whether the difference between the Final Undertakings and regulation best promotes competition.
- lviii. I fully appreciate that there are benefits in recommending acceptance of the Final Undertakings. This will deliver an earlier reduction in MTRs compared to finalisation of an STD which is assessed to be completed 3 months later (paragraph 518). The trade-off for this benefit is that MTRs will remain up to 110% above current estimates of benchmarked TSLRIC (referred to herein as TSLRIC) MTRs during the period of the Final Undertakings, and remain 20-50% above these at the end of the Final Undertakings in 5 years.
- lix. I also note that the Final Undertakings are expected to deliver at least 70% of the benefit in the FTM market that regulation is expected to achieve. In my view however, the level of above TSLRIC MTRs in the Final Undertakings leaves in place a barrier to efficient competition in both the MTM and FTM markets. This barrier is removed under the pricing principle proposed for the regulated outcome.
- lx. The Draft Report concluded that the critical point of the Commission's concerns with mobile termination is to remove barriers to efficient entry and expansion, as only then will the benefits of competition for mobile services be available to New Zealand end users. In my view some unique features have developed in the New Zealand mobile market that mean there will continue to be a barrier to competition where MTRs remain above TSLRIC at the level permitted by the Final Undertakings. These are well set out in this Final Report, so only the conclusions relevant to my recommendation are restated here.
- lxi. In the New Zealand MTM market an extremely high level of mobile traffic occurs on the same network. Currently on average more than 80% of all voice and 90% of SMS traffic is made and received on the same network. As this Final Report describes, this is significantly higher than other OECD countries. This position has resulted from the tariff structures of the large mobile networks, which each have an equivalent share of the market (by customer). This is because there has been a correspondingly high differential between the prices that the large mobile networks charge themselves when on net calls are terminated on their own networks, compared to the prices they charge for off net calls terminated on their networks by other networks. Such tariff mediated network externalities, including on net price discrimination, are neither unusual nor necessarily a cause for concern. However, in New Zealand, not only the level of on net traffic, but also the differential between on net and off net prices, is significantly higher than other OECD countries.
- lxii. In New Zealand SMS has more extreme features than for voice, with the current differential between on net and off net SMS pricing being many times that for voice.

New Zealand also has one of the highest levels of SMS usage in the OECD (paragraph 235). SMS is therefore a critical product offering for any network and if an entrant is to be able to compete for SMS customers and thereby the wider mobile market, it must be able to offer SMS off net prices no higher than the on net SMS prices of the large networks.

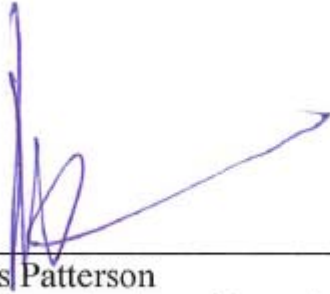
- lxiii. For these reasons, the current New Zealand mobile market is largely closed (paragraph 306) with only 20% of mobile voice calls and 10% of SMS made across other mobile networks. This is an average, and off net traffic on one network is less. The asymmetry in network sizes, and particularly the significantly low level of off net traffic in New Zealand, has the effect of making expansion by a new entrant very difficult.
- lxiv. The consequences of the current environment are also well articulated in this Final Report - currently more than two thirds of New Zealanders pay some of the highest mobile prices in the OECD. Important developments occurred in 2009. Although later than many countries, 3G services are now capable of being offered to all New Zealand end users and new market entry occurred with a third network operator and MVNOs securing resale agreements with incumbent networks. These developments suggest that competition has arrived, particularly as new entrants must price at least equivalently to current mobile service providers in order to compete for customers and, provided there are no barriers, price and innovative service competition should now occur.
- lxv. However, currently a fixed or mobile network operator's wholesale costs, particularly termination, can exceed, often significantly, retail prices for the majority of mobile traffic. Competitors cannot offer competitive prices in these conditions nor survive (paragraph 584), without cross subsidisation and New Zealand end users will remain with the same services and prices as currently experienced. Commendably, the Final Undertaking prices go some distance to rebalance this situation. Nevertheless, where wholesale MTRs exceed TSLRIC, any mobile provider attempting to efficiently compete for customers will face a barrier in the form of wholesale MTRs above those that the terminating party incurs when providing the same service to itself. In the MTM market, if a competitor is not to be marginalised it must be able to compete for all traffic, not just the significantly small volume in New Zealand that currently flows off net. Furthermore, the terminating network can always maintain a price barrier which cannot be efficiently competed away, maintaining prices above those that would otherwise be achieved in a competitive market.
- lxvi. Where MTRs are above cost in the MTM market, this Final Report observes that large network operators are unlikely to retaliate to vigorous competition by dropping on net prices to cost because the size of such reduction would be substantial. I have significant difficulty with the outcome if the assumptions upon which this observation is premised do not play out. Firstly, it assumes a greater level of confidence in estimates of on net prices than this Final Report indicates (paragraphs 462, 464 and 590). Regard also needs to be had to the response likely from each large network, rather than simply a weighted average response. It is conceivable that the market outcome from vigorous competition once barriers are removed could exceed estimates at paragraph 625. Furthermore, in my view it is not in the long term benefit of end users in telecommunication markets that if average on net prices were to reduce to the extent that the small network is not able to compete effectively the Commission will consider whether further regulatory attention is warranted (paragraph 880). Given the Commission has been concerned about competition issues in this market since 2004, it is unacceptable to not now correct this

issue once and for all. As the parties concur, TSLRIC termination prices do this. However, MTRs proposed in the Final Undertakings, which are up to 110% above current estimates and which remain 20-50% above current estimates at the end of the Final Undertakings, are high enough to retain the barrier to competition (paragraph 476).

- lxvii. Exactly the same situation currently occurs in the FTM market. Fixed only networks pay above TSLRIC MTRs for all calls to mobile networks whilst integrated operators pay MTRs only for off net calls to another mobile network. The consequence of this currently is limited competition as integrated operators offer retail prices below wholesale MTRs whilst fixed line operators ability to compete prices down to the cost of supply is limited by above cost MTRs.
- lxviii. The size of the barrier, being the differential between likely TSLRIC MTRs and those in the Final Undertakings, is a significant improvement from the current position. However, in the tightly held New Zealand market described above, competitors will need a level playing field, or very close to it, from which to be able to efficiently compete for customers. In this situation MTRs above TSLRIC to the degree in the Final Undertakings will continue to impede competition.
- lxix. In coming to this view I am not required to make any decision on glide-paths, something which will need to be addressed in setting the IPP. However, I note that asymmetric MTRs have been implemented in favour of new entrants by overseas regulators to overcome less difficult entry environments than described above. In these circumstances glide-paths are used to phase out asymmetric rates over a period of up to 4 years. In my view such a glide-path should also provide another scenario for the factual. This would provide benefits additional to those set out in this Final Report.
- lxx. Equally in my view there is no downside from TSLRIC MTRs:
- All 3 mobile network operators have spent considerable sums on money on their infrastructure and it is the foremost role of a regulator to ensure incentives to invest are encouraged. TSLRIC MTRs ensure dynamic efficiency by providing a return of and on capital invested, whilst MTRs above these in the Final Undertakings provide additional compensation and the adverse effects on competition as outlined above. TSLRIC MTRs also ensure allocative and productive efficiency whereas MTRs in the Final Undertakings allow costs to remain higher than would otherwise be competed away.
 - All parties made it clear that a move to TSLRIC MTRs would cause significant change to current mobile offerings especially for the majority of New Zealand prepaid customers. In my view any difference in impact on this from regulation compared to the Final Undertakings will be addressed by the unimpeded competition that will eventuate when barriers are removed.
 - In my view the benefit from removing barriers to competition in the mobile market far outweigh any potential consequence for the undertakings regime, if any. The undertakings regime is available for all situations where undertakings provide a better outcome than regulation.
- lxxi. Therefore whilst undertakings will deliver a reduction in MTRs some months earlier than a regulated outcome, the consequence is that MTRs will remain up to 110% above current

estimates during the period of the Undertakings, and remain 20-50% above these at the end of the Undertakings in 5 years. In my view the barrier arising from the level of above TSLRIC MTRs in the Final Undertakings continues to ensure a playing field that is not level and this will impede the benefits competition will otherwise deliver to New Zealand end users. Thus in my view the outcome that best meets the statutory test is regulation as a designated service on the basis of the proposed regulatory change set out in paragraph 366.

DATED this 22nd day of February 2010



Dr Ross Patterson
Telecommunications Commissioner

Confidential information cited in this Final Report is subject to the confidentiality order made by the Commission under s 15(i) of the Act and s 100 of the Commerce Act 1986 ('the Order'). The Order in relation to the MTAS Schedule 3 Investigation is dated 6 November 2008.

Information in relation to Telecom's, Vodafone's and 2degrees' restricted information is denoted as [] **TRI**, [] **VRI** and [] **2RI** respectively. Other interested parties' restricted information is denoted in a similar way, for example, TelstraClear's restricted information is labelled [] **TCLRI**.

Telecom's, Vodafone's and 2degrees' information that is subject to additional protection classification is denoted [] **TAP**, [] **VAP** and [] **2AP** respectively.

Where information relates to multiple parties, for example, the restricted information has been provided by both Vodafone and 2degrees, then this is denoted [] **VRI / 2RI**.

Where the Commission has derived information from restricted or additional protection information provided by multiple parties, then this is denoted [] **CRI** or [] **CAP**.

Commission only information is denoted as [] **COI**.

All restricted, additional protection and Commission only information is subject to the Order and has been extracted from the public version of this Final Report.

Key documents are available on the Commission's website at:

<http://www.comcom.govt.nz/IndustryRegulation/Telecommunications/Investigations/MobiletoMobileTermination/mobiletomobiletermination.aspx>

SECTION I: BACKGROUND

Introduction

1. This Final Report provides the recommendations of the Commerce Commission (the Commission) to the Minister for Communications and Information Technology (the Minister) in relation to the Commission's investigation pursuant to Schedule 3 of the Telecommunications Act 2001 (the Act) into whether the mobile termination access services (the MTAS) should be regulated as a designated service²² or specified service²³ under the Act (the MTAS Investigation).
2. The MTAS incorporate mobile-to-mobile (MTM) voice termination, fixed-to-mobile (FTM) voice termination and short-message-service (SMS) termination. The MTM and FTM termination services are the termination of voice calls on a mobile telephone network which originate respectively on another mobile telephone network or fixed telephone network and are handed over to the terminating mobile telephone network. The SMS termination service is the termination of a SMS on a mobile telephone network which originates on another mobile telephone network and are handed over to the terminating mobile telephone network.

Structure of this Final Report

3. This Final Report sets out the Commission's assessment of, and recommendations as to, whether the MTAS should be regulated as a designated or specified service under the Act and, if so, whether or not the two undertakings before the Commission should be recommended for acceptance as an alternative to regulation.
4. This Final Report is divided into the following eight sections:
 - Section I: Background;
 - Section II: Framework for the MTAS Investigation;
 - Section III: Market definition and competition assessment;
 - Section IV: Determining the factual and counter-factual;
 - Section V: Are there grounds to regulate?;
 - Section VI: Should undertakings be recommended for acceptance?;
 - Section VII: Non-core price and non-price terms and other issues; and
 - Section VIII: Conclusions and recommendation.

²² Designated service, for the purposes of this Final Report, means a designated access service described in subpart 1 of Part 2 of Schedule 1 of the Act. The terms on which a designated service must be supplied by an access provider pursuant to a determination may include the price payable by the access seeker for the service. This Final Report does not address designated multinetwork services,

²³ Specified service means a service described in Part 3 of Schedule 1 of the Act. The terms on which a specified service must be supplied by an access provider pursuant to a determination must exclude the price payable by the access seeker for the service.

5. Attached to this Final Report are the following appendices:
- Appendix 1: Process of MTAS Investigation;
 - Appendix 2: Executive summary from the Draft Report;
 - Appendix 3: Submissions on market definition and competition assessment issues;
 - Appendix 4: Submissions on benchmarking issues;
 - Appendix 5: Submissions on assessment of whether there are grounds to regulate and whether the undertakings should be recommended for acceptance; and
 - Appendix 6: Submissions on non-core price and non-price terms and other issues.
6. The presentation of this Final Report differs from that in previous Schedule 3 investigations. The approach adopted is designed to focus on the key issues in the body of this Final Report while Appendices are used to discuss background material such as the process of the investigation and submissions.
7. The Commission has fully considered all issues raised in submissions on the Draft Report²⁴ and during the MTAS Conference²⁵ together with other relevant and admissible submissions made during the MTAS Investigation. Detailed summaries of relevant submissions grouped by theme are contained in Appendices 3 to 6.
8. This Final Report does not repeat the Commission's preliminary views from the Draft Report. A copy of the Executive Summary of the Draft Report is attached as Appendix 2 and, where relevant, the Commission's preliminary views are noted both in the body of this Final Report and in Appendices 3 to 7. Where this Final Report does not indicate that the Commission's preliminary views on a matter discussed in the Draft Report (and not discussed in this Final Report) have changed, those views should, where relevant, be taken to remain unchanged for the purposes of this Final Report.

Current market conditions

9. Mobile termination rates (**MTRs**) in the wholesale FTM market in New Zealand are currently set in accordance with deeds entered into by Telecom and Vodafone (**Deeds**)²⁶, at the rates set out in Table 2 below.

²⁴ 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) (**Draft Report**).

²⁵ Mobile Termination Access Services Conference, 2-3 September 2009 (**MTAS Conference**).

²⁶ See Telecom, *Deed Poll by Telecom New Zealand Limited relating to fixed to mobile termination rates*, 11 April 2007 (**Telecom Deed**), available at <http://www.med.govt.nz/upload/45931/telecom-deed.pdf>; and Vodafone, *Deed of Undertaking by Vodafone New Zealand Limited*, 20 April 2007 (**Vodafone Deed**), available at <http://www.med.govt.nz/upload/45929/vodafone-deed.pdf>.

Table 2: FTM MTRs under the MTR Deeds

| Annual Period | Maximum FTM termination rate (cpm, excl. GST) | |
|---------------------------------|---|----------|
| | Telecom | Vodafone |
| Effective Date to 31 March 2008 | 17.0 | 17.0 |
| 1 April 2008 to 31 March 2009 | 16.0 | 16.0 |
| 1 April 2009 to 31 March 2010 | 15.0 | 15.0 |
| 1 April 2010 to 31 March 2011 | 14.0 | 14.4 |
| 1 April 2011 to 31 March 2012 | 12.0 | 14.0 |

10. Wholesale MTM MTRs are set commercially by Telecom and Vodafone at the same level as FTM MTRs. In its submission on the Issues Paper²⁷, Vodafone stated that, at present, it offers a standard market rate for MTM voice termination that is consistent with the prices for FTM voice termination contained in the Vodafone Deed.²⁸ Similarly, Telecom noted that its current wholesale voice termination rates for FTM services match the MTM tariffs contained in its standard mobile interconnection agreement.²⁹
11. The current prevailing rate for SMS termination on Vodafone and Telecom's networks is 9.5 cpSMS.³⁰
12. Vodafone has entered into a commercial interconnection agreement (2degrees/Vodafone ICA) with 2degrees. [] VAP / 2AP. The FTM and MTM MTRs that Vodafone pay 2degrees to terminate calls on 2degrees' network under the 2degrees/Vodafone ICA are [] VAP / 2AP. The rates that Vodafone pay 2degrees to terminate SMS on 2degrees' network under the 2degrees/Vodafone ICA [] VAP / 2AP.

Undertakings being assessed in this Final Report

13. During the process of the MTAS Investigation, the Commission has received a series of undertakings from 2degrees, Telecom and Vodafone, as detailed in Appendix 1. For the purposes of this Final Report, the Commission is considering final undertakings submitted by Telecom on 11 February 2010 (the **Telecom 11 February 2010 Undertakings**) and submitted by Vodafone on 16 February 2010 (the **Vodafone 16 February 2010 Undertakings**).
14. Telecom submitted revised undertakings to the Commission on 16 December 2009 (now superseded). Telecom noted in submitting their 16 December 2009 Undertaking that:³¹

‘We have engaged in discussions with Vodafone over the last week. We understand that they are not prepared to commit to the price path set out in the 28 October letter, unless the start of the glide-path

²⁷ Commerce Commission, *Telecommunications Act 2001: Schedule 3 Investigation Into Regulation Of Mobile Termination - Issues Paper*, 8 August 2008.

²⁸ Vodafone, *Submission on Schedule 3 Investigation into Regulation of Mobile to Mobile Termination Issues Paper*, September 2008, page 55, para 40.

²⁹ Telecom, *Schedule 3 Investigation into regulation of mobile termination: Submission on issues paper*, 5 September 2008, page 26.

³⁰ Vodafone, *Telecommunications Act 2001: Submission on the Schedule 3A Undertakings provided on 12 January 2009*, 13 February 2009, page 65, para 225; and, Telecom (Wholesale), *Interconnection Agreement*, available from http://www.telecomwholesale.co.nz/f543.253191/253191_M2M_ICA_Final_23.7.08.pdf, Schedule 4, clause 4.1ee, page 75.

³¹ Telecom, *MTAS – Final Revised Undertaking*, 16 December 2009, page 2.

can be postponed until 31 October 2010. Our understanding from the Commission's public statements on this matter is that an early start to an undertakings-based outcome in 2010 is one of the key advantages of such an outcome over regulation. That said, six months in the context of a five year undertaking may not be material, so if a 1 October 2010 start is acceptable to the Commission it would also be acceptable to us.'

15. Subsequently Telecom advised the Commission on 9 February 2010 that:³²

'As Vodafone has publicly confirmed that it does not intend bringing forward the start date of its MTR reductions to match our Undertakings, we have no choice but to push back the start date of our MTR reductions to match Vodafone's.

...the importance of aligned terms as between Undertakings offered by Vodafone and Telecom has been widely canvassed and generally accepted by all parties to the MTAS discussions. Unfortunately, the consequence of the misalignment of start dates would be to drive asymmetry into the market, if the Commission were to accept both sets of Undertakings as they stand.'

16. Telecom formally provided final revised undertakings to the Commission on 11 February 2010 which aligned the implementation dates for reductions in MTRs in its final revised undertakings with those provided in Vodafone's 16 December 2009 Undertakings.
17. Vodafone also submitted revised undertakings to the Commission on 16 December 2009 (now superseded).
18. On 11 February 2010 the Commission requested that Vodafone clarify a number of matters in relation to their 16 December 2009 Undertaking, relating to changes that Vodafone had indicated would be made to Vodafone's undertakings³³ and missing text in Vodafone's 16 December 2009 undertakings.
19. On 16 February 2010 Vodafone provided final revised undertakings to the Commission which addressed these issues.
20. Telecom's 11 February 2010 and Vodafone's 16 February 2010 Undertakings are collectively referred to in this Final Report as the **Final Undertakings**.

References to NZ Communications and 2degrees in this Final Report

21. On 11 May 2009 NZ Communications Ltd changed its legal name to Two Degrees Mobile Ltd, and on 13 May 2009 announced that it would operate under the brand name '2degrees'. These changes occurred after NZ Communications had provided its initial undertaking and submissions on the initial undertakings to the Commission. For consistency, NZ Communications Ltd/Two Degrees Mobile Ltd is referred to as **2degrees** throughout this Final Report.

³² Telecom, *MTAS – Amendment to Final Revised Undertaking*, 9 February 2010.

³³ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 16 October 2009, and Telecom / Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009.

SECTION II: FRAMEWORK FOR MTAS INVESTIGATION

Introduction

22. This Section outlines the legislative and assessment framework for the MTAS Investigation.
23. In respect of Schedules 3 and 3A of the Act, this Section set outs the general approach to the Commission's assessment of whether to recommend inclusion of the MTAS as a regulated service in Schedule 1 of the Act and/or to recommend acceptance of undertakings.
24. This section also discusses the Commission's views on parties' submissions regarding the appropriateness of the MTAS Investigation in the context of the Deeds.

Legislative framework

Schedule 3 of the Act – proposed regulatory change

25. Schedule 3 of the Act contains the procedure for altering regulated services. Under Part 1 of Schedule 3, the Commission may undertake an investigation into a proposed alteration to Schedule 1 of the Act, and recommend to the Minister whether or not the proposed alteration should be made. The Commission commenced the MTAS Investigation pursuant to Schedule 3 of the Act on 6 November 2008.³⁴
26. The Commission is required to prepare a Draft Report, which must include the detail of the proposed alteration, and identify any recommendations that the Commission considers to be sufficiently related to each other that they ought to be considered together.³⁵ The Commission's Draft Report was published on 30 June 2009.³⁶
27. The Commission must make reasonable efforts to hold conferences in relation to the proposed alteration or public hearings in relation to the proposed alteration (where the Commission is satisfied that it is in the public interest to do so) within 10 working days after the closing date for submissions on the Draft Report.³⁷ The Commission held the MTAS Conference on 2 and 3 September 2009³⁸ and a public meeting to provide requested clarification on 23 September 2009.³⁹ As outlined in Appendix 1, the Commission has, throughout the MTAS Investigation, undertaken additional consultation to that required by the Act.
28. The Commission must make reasonable efforts to prepare and deliver a Final Report to the Minister regarding the proposed alteration no later than 120 working days after the date of

³⁴ See Appendix 1 for details of the *Process of MTAS Investigation*.

³⁵ Schedule 3, clause 2 of the Act.

³⁶ See footnote 24.

³⁷ Schedule 3, clause 3(1) of the Act.

³⁸ See footnote 25.

³⁹ MTAS Investigation Public Meeting Re Clarification of Matters for Submission of Revised Undertakings, 23 September 2009.

giving public notice of the investigation.⁴⁰ On 19 February 2009, the Commission wrote to the Minister informing him that the Commission would not be able to meet this timeframe.

29. In preparing this Final Report, the Commission must consider all submissions made on the Draft Report and all information and opinions presented or expressed at any public hearing on the Draft Report.⁴¹
30. The requirements for the Commission's Final Report for this Schedule 3 investigation are set out in clause 4(3) of Schedule 3 of the Act, which provides:⁴²

'4 Final Report of recommendation of Commission

...

(3) A Final Report must include—

- (a) the detail of the proposed alteration; and
- (b) a recommendation by the Commission as to—
 - (i) whether or not the proposed alteration should be made;
 - (ii) in the case of a proposed alteration to a designated service, whether or not the Minister's decision regarding the proposed alteration should be deferred for any period the Commission thinks fit; and
- (c) the reasons for the Commission's recommendations; and
- (d) the views of 2 members of the Commission (other than the Telecommunications Commissioner) regarding the recommendation.'

Schedule 3A of the Act – undertakings

General provisions

31. Schedule 3A of the Act contains a regime that allows access providers to submit undertakings as a potential alternative to regulation. The purpose of Schedule 3A is set out in clause 2, which provides:

'2 Purpose of clauses 3 to 16

The purpose of clauses 3 to 16 is to provide, as an alternative to a proposed regulatory change, a mechanism for an access provider to supply a service to all access seekers—

- (a) on a voluntary basis that avoids the need for regulation; and
- (b) on terms and conditions agreed between the access provider and the Commission.'

32. While a number of undertakings and revised undertakings were submitted to the Commission throughout the MTAS Investigation,⁴³ the Commission is considering the

⁴⁰ Schedule 3, clause 4(1) of the Act.

⁴¹ Schedule 3, clause 4(2) of the Act.

⁴² Schedule 3, clause 4(3) of the Act.

⁴³ For discussion of undertakings, see Section VI and Appendix 1 of this Final Report.

Final Undertakings from Telecom and Vodafone pursuant to Schedule 3A for the purposes of this Final Report.

33. Clause 3 of Schedule 3A to the Act provides:

‘3 Commission may accept undertaking

- (1) While the Commission is considering a proposed regulatory change, the Commission may accept an offer from an access provider to supply a service to all access seekers on the terms and conditions of a written undertaking (an **undertaking**).
- (2) If the Commission accepts an undertaking, a Final Report may include—
 - (a) a recommendation by the Commission that the Minister should accept the undertaking; and
 - (b) any of the following recommendations by the Commission:
 - (i) that the proposed regulatory change should be made:
 - (ii) that the proposed regulatory change should not be made:
 - (iii) that the Minister’s decision on the proposed regulatory change should be deferred.
- (3) However, an undertaking that the Commission accepts under subclause (2) has no legal effect unless it is registered under clause 6.”

34. Clause 6 of Schedule 3A requires the Commission to register an undertaking if the Minister accepts the Commission’s recommendation that the Minister should accept an undertaking.

35. Clause 4 of Schedule 3A provides that the Commission must not make a recommendation in its Final Report unless the Commission is satisfied that the undertaking:

- complies with the Act and any regulation made under the Act; and
- complies with the standard access principles set out in clause 5 of Schedule 1 of the Act and any limits on those standard access principles set out in clause 6 of that schedule.

36. Clause 5 of Schedule 3A of the Act contains the requirements for any undertaking:

‘5 Requirements for undertaking

- (1) An undertaking must—
 - (a) be signed or executed by the relevant access provider; and
 - (b) specify the terms and conditions of the supply of the service; and
 - (c) specify the date by which those terms or conditions must be complied with by the relevant access provider; and
 - (d) specify a mechanism for the resolution by the Commission or a suitably qualified and experienced independent person of any issues or disputes that arise after the undertaking is registered; and

(e) provide for any other prescribed matters.

(2) An undertaking must not be amended after the Commission has made a recommendation under clause 3(2) in respect of that undertaking.’

37. The Commission’s assessment of the compliance of the Final Undertakings with the Act is detailed in Section VII of this Final Report.

Timeframe for undertakings

38. Clause 7(1) of Schedule 3A of the Act provides that the registration of an undertaking is effective for a period of 5 years from the date of registration and any further period that the Commission and the relevant access provider may agree. Before agreeing to a further period, the Commission must consult with every person who has a material interest in the matter.⁴⁴

39. The Commission may make a recommendation in the Final Report to the Minister that the registration of an undertaking should expire earlier than the five year period having regard to the following matters:

- the reasonable needs of potential access seekers;
- the commercial lifetime of the service delivery technology concerned; and
- any other factors that the Commission thinks relevant.

40. The Commission’s assessment of the appropriate recommended duration of the Final Undertakings is detailed in Section VII of this Final Report.

Enforcement of the registered undertakings

41. It is noted that, were the Minister to accept a recommendation that undertakings be accepted, registered undertakings would comprise “enforceable matters” under section 156N(g) of the Act. Section 156O of the Act would apply to entitle access seekers to make a written complaint to the Commission alleging breach of the registered undertakings and the Commission would in that case be entitled to exercise any of the powers open to it pursuant to section 156O of the Act. Similarly, the remedies available to enforce the registered undertakings in the High Court would be open to the Commission and parties in appropriate cases under sections 156P and 156Q of the Act.

Statutory purpose and considerations

42. Section 18 of the Act describes the purpose of Schedule 3 as follows:

‘18 Purpose

- (1) The purpose of this [Part 2] and Schedules 1 to 3 is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
- (2) In determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefit of end-users

⁴⁴ Schedule 3A, clause 7(2) of the Act.

of telecommunications services within New Zealand, the efficiencies that will result, or will be likely to result, from that act or omission must be considered.

(3) Except as otherwise expressly provided, nothing in this Act limits the applications of this section.

(4) Subsection (3) is for the avoidance of doubt.’

43. Section 19 of the Act provides as follows:

‘19 Commission and Minister must consider purpose set out in section 18 and additional matters

If the Commission or the Minister (as the case may be) is required under this [Part 2] or any of Schedules 1, 3, and 3A to make a recommendation, determination, or a decision, the Commission or the Minister must—

(a) consider the purpose set out in section 18; and

(b) if applicable, consider the additional matters set out in Schedule 1 regarding the application of section 18; and

(c) make the recommendation, determination, or decision that the Commission or Minister considers best gives, or is likely to best give, effect to the purpose set out in section 18.’

44. Section 19A of the Act provides as follows:

“19A Commission to have regard to economic policies of Government

(1) In the exercise of its powers under Schedule 3, the Commission must have regard to any economic policies of the Government that are transmitted, in writing, to the Commission by the Minister.

(2) The Minister must, as soon as practicable after transmitting a statement of economic policy of the Government to the Commission under subsection (1),—

(a) arrange for a copy of that statement to be published in the *Gazette*; and

(b) present a copy of that statement to the House of Representatives.

(3) To avoid doubt, a statement of economic policy of the Government transmitted to the Commission under this section is not a direction for the purposes of Part 3 of the Crown Entities Act 2004.’”

45. On 5 February 2009, the Minister transmitted a statement of the economic policy of the Government to the Commission, pursuant to section 19A of the Act. The operative part of this economic policy statement is as follows:⁴⁵

‘It is the economic policy of the Government that decisions concerning the regulation of telecommunications services should be consistent with, and take full account of, New Zealand’s relevant international commitments, as expressed in bilateral and multilateral international instruments in effect in New Zealand.

In the Government’s view, compliance with these commitments facilitates trade in telecommunications goods and services, assists the development of telecommunications infrastructure, and promotes competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.’

46. The Commission has considered the Government’s statement of economic policy as part of its decision making in reaching the conclusions outlined in this Final Report, as discussed in paragraphs 889 to 898 in relation to the approach to be taken to internationally-originated calls. The Commission’s view is that this is the only issue relevant to the

⁴⁵ The full version of the Economic Policy Statement is available on the Commission’s website at <http://www.comcom.govt.nz/IndustryRegulation/Telecommunications/Investigations/ContentFiles/Documents/Letter%20from%20Minister%20-%20International%20commitments%20in%20telecommunications%20%205%20Feb%202009.pdf>

Government's statement which it has been necessary to take into account in the MTAS Investigation.

47. In carrying out its assessment for the purposes of and making its recommendations in this Final Report, the Commission has taken account of the statutory purpose and all required considerations pursuant to the Act.

Assessment framework

Two stage approach to assessment

48. In the Draft Report the Commission adopted an assessment framework which, in summary:

- identified relevant markets and assessed the state of competition in those markets;
- having determined that there were competition issues which warranted consideration of regulation of the MTAS, proposed an initial pricing principle and final pricing principle for regulation of the MTAS;
- identified, based on the results of benchmarking forward-looking, cost-based estimates, the likely regulated price for the MTAS for the purposes of the factual; and
- undertook a cost-benefit assessment of the factual of regulation compared against a counter-factual based on the undertakings submitted by Telecom and Vodafone as at the date of the Draft Report.

49. In its submission of 6 May 2009, Vodafone stated:⁴⁶

‘Given that Vodafone, Telecom and NZC have submitted undertakings to the Commission pursuant to Schedule 3A, the Commission must apply the factual-counter-factual 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 contracts and the MTR deeds); and
- one test in which the net benefits of regulation are compared to the net benefits of an undertaking.’

50. The Commission agrees that this two-stage approach to the assessment of whether the MTAS should be regulated as a designated or specified service under the Act is appropriate in this case. While a two-stage approach does not alter the assessment that the Commission is undertaking (or undertook in the Draft Report⁴⁷), it more clearly identifies the rationale for the Commission's recommendation in this Final Report.

⁴⁶ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, May 2009, page 28, paragraph 78.

⁴⁷ In the Draft Report, Vodafone's and Telecom's undertakings were based substantially on the rates applicable pursuant to the Deeds (as extended to apply until 2014). A comparison of the net benefits of regulation to the net benefits of non-regulation was therefore a substantially similar comparison to the comparison of the net benefits of regulation against the net-benefits of the undertakings offered at that time. Such a two stage comparison approach was not undertaken in the Draft Report. Such an approach however applies more appropriately in this Final Report given the reductions in rates offered in the Final Undertakings from those offered at the Draft Report stage.

51. In the first stage of assessment in this Final Report (discussed in Sections III to V), the Commission:
- has assessed whether there are competition issues which warrant consideration of regulation of the MTAS; and
 - having determined that there are competition issues which warrant consideration of regulation of the MTAS, has assessed whether:
 - the factual of regulation (looking at a range of costs derived from benchmarks of forward-looking cost-based MTRs)

when compared to
 - the counter-factual of the outcomes that would likely occur without regulation, based on current MTRs (i.e., the Deeds and ICAs, including the 2degrees/Vodafone ICA)⁴⁸

would best or be likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.

This is referred to in this Final Report as the **stage one assessment**.

52. In the second stage of assessment (discussed in Section VI), if a case for regulation has been established under the stage one assessment outlined above, the Commission assesses whether:
- a counter-factual of recommending acceptance of the Final Undertakings⁴⁹

when compared to
 - the factual of regulation

would best or be likely to best give effect to the promotion of, competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.

This is referred to in this Final Report as the **stage two assessment**.

53. The Commission has taken into account the range of options open to it pursuant to the Act in making its recommendation in this Final Report⁵⁰.

⁴⁸ The Commission has been provided with information regarding the various ICAs that 2degrees, Telecom and Vodafone are party to. These ICAs are subject to additional protection classification. Broadly, the ICAs [] **2AP / VAP, VAP, TAP**, with the exception of the 2degrees / Vodafone ICA, which provides [] **2AP / VAP**.

⁴⁹ See paragraphs 66 to 72 for discussion of selection of the appropriate counter-factual for this Final Report.

⁵⁰ See paragraph 55.

Application of the Commission's factual/counter-factual analysis

General approach

54. In this Final Report, the Commission assesses the likely benefits and detriments of the proposed recommendation using its standard analysis of the factual (the Commission's view of what is likely to occur where the service under consideration is subject to regulation) and the counter-factual (the Commission's view of what is likely to occur in the absence of regulation).
55. In this case, where there are three monopoly access providers for MTAS on each mobile network, and two undertakings being considered, there are a number of potential counter-factuals. In addition, the Act empowers the Commission to make a number of decisions, including decisions to:⁵¹
- not recommend acceptance of any undertakings, and recommend a proposed regulatory change;
 - recommend acceptance of one or more undertakings as an alternative to a proposed regulatory change;
 - recommend acceptance of one or more undertakings in addition to a proposed regulatory change; or
 - recommend that the Minister's decision on the proposed regulatory change should be deferred (in combination with recommending acceptance of undertakings or otherwise).
56. These permutations create a number of potential counter-factual scenarios.
57. In the context of the Commission's decision making for merger clearances under section 66 of the Commerce Act 1986, the courts have provided guidance to the Commission on the correct approach where there are multiple counter-factuals.⁵² In that context, the Commission's approach is to:
- identify the potential counter-factuals;
 - eliminate any counter-factuals that the Commission considers are not likely;
 - consider each of the remaining counter-factuals; and
 - assess whether any of the remaining and likely counter-factual(s) is likely to result in a lessening of competition compared to the factual of clearance.
58. The Commission considers that that, while applicable to a different statutory function, this approach provides relevant guidance on how the Commission can deal with multiple counter-factuals as part of the framework for analysis in its decision making for the MTAS Investigation.

⁵¹ Schedule 3, clause 4(3) and Schedule 3A, clause 3(2) of the Act.

⁵² See *Woolworths Ltd v Commerce Commission* (2008) 8 NZBLC 102,128 (HC).

Identifying the counter-factual for the stage one assessment

59. For the stage one assessment, the factual being considered is recommending regulation of the MTAS. The counter-factual scenario for the stage one assessment is based on the prevailing MTRs contained in the Deeds, and information available to the Commission on commercial interconnection agreements (ICAs), such as the 2degrees / Vodafone ICA. The Deeds are due to expire in 2012.⁵³
60. The Commission has identified the following potential counter-factuals for the purposes of the stage one assessment in this Final Report:
- extending the trend in reductions in the MTRs for FTM and MTM from the Deeds through to 2015, while maintaining the SMS rate from ICAs as at 31 March 2012; and
 - no change in the MTRs from the Deeds or ICAs as at 31 March 2012.
61. The Commission considers that it is reasonable to assume that, absent regulation, there would continue to be gradual reductions in the MTRs for FTM and MTM, having regard to the following considerations:
- the Deeds generally provide for annual reductions in the FTM MTR of 1-2cpm;
 - while the Deeds only applied to FTM MTRs, the MNOs have in practice applied the same MTRs to MTM traffic; and
 - the initial undertakings received from Vodafone and Telecom during this investigation (which were based substantially on the Deeds) allowed for annual reductions in the FTM MTR of 1cpm beyond March 2012.⁵⁴
62. For the counter-factual in the stage one assessment, the Commission has therefore extended the MTRs for FTM and MTM in the Deeds through to 2015 (i.e to the end of the assessment period being considered), based on the annual reductions implicit in the undertakings from Vodafone and Telecom dated 6 May 2009.
63. For SMS traffic, the Commission noted in the Draft Report that the prevailing rate for SMS termination on Vodafone and Telecom's networks is 9.5cpSMS.⁵⁵ The Commission understands that this MTR has remained unchanged in recent years and it is reasonable to assume that, absent regulation, such a rate is unlikely to decrease in the relevant timeframe covered by the counter-factual. The Commission has therefore used a constant MTR of 9.5cpSMS for SMS termination under the counter-factual of no regulation.

⁵³ The FTM rates applicable pursuant to the Telecom Deed and the Vodafone Deed apply until 31 March 2012 (unless either of the Deeds are terminated earlier due to early termination triggers).

⁵⁴ Telecom and Vodafone Undertakings, 6 May 2009.

⁵⁵ Draft Report, paragraph 162.

64. For the counter-factual assessment in the stage one assessment, the Commission has also had regard to the MTRs contained in the 2degrees / Vodafone ICA. The 2degrees / Vodafone ICA provides for []⁵⁶VAP / 2AP.
65. While other potential counter-factuals (for example, with differing annual reductions) could in theory be considered, the Commission does not consider these to be likely having regard to the reasons discussed in paragraphs 61 to 63 above. The Commission's analysis in Section V of this Final Report therefore takes the counter-factual described in paragraph 62 into account in reaching its recommendations.

Identifying the counter-factual for the stage two assessment

66. The Commission has received a series of undertakings and revised undertakings from 2degrees, Telecom and Vodafone throughout the process of the MTAS Investigation. Currently the Commission has before it two undertakings from Telecom and Vodafone, being the Final Undertakings.
67. For the stage two assessment, the factual being considered is recommending regulation of the MTAS and recommending that the Final Undertakings be rejected.
68. The Commission has identified the following potential counter-factuals for the purposes of the stage two assessment in this Final Report:

Counter-factuals involving one undertaking:

- Acceptance of one undertaking and recommending regulation of MTAS;
- Acceptance of one undertaking and recommending regulation of MTAS for only certain Access Providers;
- Acceptance of one undertaking and not recommending regulation of MTAS;

Counter-factuals involving both undertakings:

- Acceptance of both undertakings and not recommending regulation of MTAS;
- Acceptance of both undertakings and recommending regulation of MTAS; and
- Acceptance of both undertakings and recommending regulation of MTAS for only certain Access Providers.

69. It is noted that other potential counter-factuals involving recommending acceptance and registration of undertakings for a period shorter than 5 years or recommending that regulation be deferred could also be considered. The Commission has not considered these options as potential counter-factuals for its stage two assessment for the reasons set out in Section VII of this Final Report.⁵⁷

⁵⁶ See further, paragraph 12.

⁵⁷ As discussed in paragraphs 932 to 940 and 945 to 947.

70. As Telecom have aligned the implementation of the price terms in their undertaking with Vodafone's implementation of price terms, there are no material differences between the Final Undertakings⁵⁸. The Commission considers that, in the absence of some material difference between the Final Undertakings⁵⁹, there are no grounds to treat these undertakings differently for the purposes its stage two counter-factual analysis. The Commission does not therefore consider that assessment of any of the counter-factuals involving one undertaking (as identified above) is appropriate for the purpose of this Final Report.
71. The Commission has considered the potential counter-factuals involving both undertakings (as identified above). For the reasons discussed in Section VII of this Final Report⁶⁰, the Commission does not consider that assessment of a counter-factual involving acceptance of two undertakings and recommending a form of MTAS regulation is appropriate for the MTAS Investigation.
72. The Commission therefore considers that the appropriate counter-factual for the stage two assessment in this Final Report is acceptance of both the Final Undertakings and not recommending regulation of MTAS. The Commission's analysis in Section VI of this Final Report therefore takes this counter-factual into account in reaching its recommendations.

Cost-Benefit Analysis

73. The Commission's decision-making for the MTAS Investigation is informed by the requirement that the Commission make the decision that best gives or is likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand.⁶¹
74. Further, in assessing whether or not or the extent to which the options being considered by the Commission for recommendation, such as regulation of MTAS or acceptance of undertakings will result or will be likely to result in competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the Commission is expressly required to consider the efficiencies that will result, or will be likely to result, from the proposed change.⁶² The term 'efficiencies' is not defined in the Act, though the Commission generally assesses a full range of efficiency effects, including productive and allocative efficiencies (sometimes referred to together as static efficiencies) and dynamic efficiencies. Static efficiencies generally lend themselves more readily to quantitative analysis than dynamic efficiencies.
75. The Commission is not limited to considering efficiencies, and may also consider other relevant factors. The Act does not direct the Commission as to the appropriate weight to be given to efficiencies or to other considerations. The appropriate weight to afford each consideration is, accordingly, a matter for the Commission.

⁵⁸ The Commission notes that while there are a number of differences between the non-core price and non-price terms between the Final Undertakings, as discussed in Section VII of this Final Report, these differences are not material.

⁵⁹ As was the case with Telecom's 16 December 2009 Undertaking, which provided an earlier implementation date than Vodafone's 16 December 2009 Undertaking.

⁶⁰ As discussed in paragraphs 941 to 944.

⁶¹ See ss 18 and 19 of the Act.

⁶² See s 18(2) of the Act.

76. In assessing the extent to which the regulation of MTAS or acceptance of undertakings will promote competition for the long-term benefit of end-users of telecommunications services in New Zealand, the Commission's analysis is based on both qualitative and quantitative factors. The overall assessment that the Commission is required to undertake is, however, necessarily reflective of value judgements, not least because of the long-term, forward-looking nature of the Commission's assessment. This is equally true for more quantitative forms of analysis, such as quantitative modelling, as the assumptions that inform such analysis are often based on particular value judgements which may not be shared by submitting parties. Accordingly, the overall assessment of costs and benefits that the Commission is required to undertake in order to ensure it is best giving effect to section 18 of the Act is largely qualitative, even where informed directly by quantitative modelling or evidence and views provided by submitting parties. During this investigation, the Commission has focused on whether current MTRs have resulted in a barrier to entry and/or expansion in the downstream markets, and whether MTRs that better reflect the cost of supplying the MTAS would reduce any such barrier and in so doing, promote competition in those markets for the long term benefit of end-users.

Role of quantitative analysis

77. The Commission considers that, in order to aid its assessment of the promotion of competition for the long-term benefit of end-users, it should, where appropriate, quantify the costs and benefits of the regulation of MTAS or acceptance of undertakings. As discussed in paragraph 76, a quantitative analysis of the likely costs and benefits of the regulation of MTAS or acceptance of undertakings informs the Commission's overall assessment in reaching its recommendations in a Schedule 3 investigation. One important set of costs and benefits that can sometimes be quantified is the price effects of the regulation of MTAS or acceptance of undertakings. Changes in the MTAS price can be expected to lead to changes in retail prices of those services that rely on, or are related to, the MTAS. On this analysis, a decrease in retail prices resulting from the regulation of MTAS or acceptance of undertakings represents a benefit to end-users, whereas an increase in retail prices may represent a detriment. Quantitative analysis of the price effects of the regulation of MTAS or acceptance of undertakings is one part of the Commission's overall assessment, and is used to identify potential direct and tangible benefits and detriments for end-users.
78. The Commission's approach to using quantitative analysis to inform its overall decision assessment was set out in the Commission's final determination in the Qantas/Air New Zealand authorisation:⁶³

'The Commission's view is that the value of a [quantitative] model is in its ability not to produce 'proof' of a substantial lessening of competition, nor to supplant the Commission's exercise of judgement, but rather in providing support to the Commission's deliberations by:

- focusing parties' attentions on verifiable economic arguments;

⁶³ Commerce Commission, *Determinations pursuant to the Commerce Act 1986 in the matter of an application for authorisation of a business acquisition and in the matter of an application for authorisation of certain restrictive business practices and involving Air New Zealand Limited and Quantas Airways Limited, Decision 511*, (23 October 2003), para [909].

- making transparent the values of the key parameters and assumptions in the analysis; and
- producing quantitative estimates of the results of a given transaction or arrangement.”

79. While stated in a different context (authorisations under sections 61 and 67 of the Commerce Act 1986), the Commission considers that it is appropriate to adopt a similar approach to quantitative modelling in the MTAS Investigation. Accordingly, the use of quantitative models and examples has informed the Commission’s overall qualitative analysis by focusing attention on (and thereby testing) key economic assumptions, providing context for the related economic arguments, and providing tangible estimates of the costs and benefits of the regulation of MTAS or acceptance of undertakings.

Consumer surplus and efficiencies

80. In this Final Report, the Commission sets out its views on how competition in the relevant downstream markets will be promoted by the regulation of MTAS or acceptance of undertakings. Strengthened competition will be likely to deliver a number of benefits to end-users, including lower prices for retail services that use the MTAS. Such price effects lead to an increase in what is sometimes referred to as ‘consumer surplus’.
81. In this Final Report, the Commission’s consideration includes the extent to which the price reductions arising from lower MTRs and increased competition, and the consequent increase in consumer surplus, are likely to be sustainable in the long-term. In attempting to replicate the outcomes of a competitive market, where MTAS is supplied at cost-based prices into the downstream markets, the Commission considers that it is appropriate to place significant weight on the resulting gains in consumer surplus. In the absence of a competitive market, suppliers are likely to exercise significant market power that enables those suppliers to capture surplus gains that would otherwise be passed on to end-users through the pressures of competition. In assessing the long-term benefit to end-users in this Final Report, the Commission has therefore included the price effects from the regulation of MTAS or acceptance of undertakings that result directly from the promotion of competition.
82. The Commission is also required to have regard to efficiencies. To the extent that the regulation of MTAS or acceptance of undertakings promotes competition for the long-term benefit of end-users, the regulation of MTAS or acceptance of undertakings is likely to also increase efficiencies. The Commission considers that, in order to fully account for efficiencies, it should where appropriate attempt to quantify those efficiencies directly.
83. Efficiencies represent a net gain to the total New Zealand economy, which includes both end-users (as consumers of telecommunications services) and the telecommunications industry (as producers of such services). Accordingly, to the extent that competition is promoted, the efficiency gains from the regulation of MTAS or acceptance of undertakings are likely to complement, but are not equivalent to, the direct benefits end-users gain through the price effects of the regulation of MTAS or acceptance of undertakings. Analysis of the efficiency effects of the regulation of MTAS or acceptance of undertakings is sometimes referred to as ‘total surplus’ analysis.

84. Accordingly, the Commission has undertaken some quantitative analysis of the potential static price effects (on both a consumer surplus and a total surplus basis) resulting from the regulation of MTAS or acceptance of undertakings.
85. The Commission notes that the benefits to end-users from preventing suppliers from exercising significant market power, as discussed in paragraph 81, are sometimes presented as transfers from producers to consumers. The Commission's view is that the significance given to such transfers may depend on the potential dynamic implications of the regulation of MTAS or acceptance of undertakings and in particular how the regulation of MTAS or acceptance of undertakings might affect the incentives for efficient investment over time. In the Draft Report, the Commission considered the dynamic efficiency implications of a cost-based MTR (as compared to the counter-factual), and concluded that a move towards cost-based MTRs is likely to promote competition in the downstream retail mobile services market and thereby increase incentives for ongoing innovation and investment.⁶⁴ As discussed later in this Final Report, the Commission's has concluded that the regulation of MTAS or acceptance of undertakings will increase competition in both the retail mobile market and the retail FTM/tolls market, and encourage efficient investment and innovation over time. The dynamic efficiency implications of the regulation of MTAS or acceptance of undertakings are not readily quantifiable. Accordingly, the Commission has considered the potential dynamic effects of the regulation of MTAS or acceptance of undertakings in a more qualitative manner.

Assessing the impact of regulation in downstream markets

86. The Commission's quantitative analysis focuses on the potential competitive impact of the regulation of MTAS or acceptance of undertakings in the downstream retail market in which FTM services are supplied. The Commission considers that it is useful to quantify the potential competitive impact for FTM services because this can be done with a significantly higher degree of precision than for other MTAS services, and can focus the debate on key economic arguments and assumptions to inform the wider assessment of the proposed regulation of each of the MTAS services. The Commission has also made some allowance for potential detriments in the form, for example, of direct and indirect regulatory costs and the costs of the regulatory process, as well as some offsetting price increases (**waterbed effect**) as a result of lower MTRs.
87. In assessing the impact of the regulation of MTAS or acceptance of undertakings in promoting competition in the downstream retail mobile services market, the Commission's approach is based largely on qualitative analysis. While this approach does not allow for a quantitative estimate of the costs and benefits of MTM regulation as conducted for FTM services, the Commission considers that such analysis is appropriate in the retail mobile services market having regard to factors specific to that market which make quantitative analysis significantly more difficult to undertake accurately than that the FTM market. This means that any quantified results from such an exercise (of the type conducted for FTM services) would be of very limited value, and the Commission considers therefore that any quantitative assessment would be neither useful nor appropriate. These factors are discussed in Section V of this Final Report.

⁶⁴ Draft Report, paragraph 826.

Approach to price-point and other parameters for assessment

88. The MTAS Investigation has been conducted under Schedule 3 of the Act which has different requirements compared to a standard terms determination (**STD**) process.
89. For example, while the Commission would be required under an STD process to determine a specific price for a designated service, the Commission does not consider that it is required to specify a precise price point for the purposes of defining a likely factual scenario in a Schedule 3 investigation. The Commission has determined that, for the purposes of this investigation, it is appropriate to use a range of benchmarked costs within the benchmark set, and has established an upper and lower bound of cost-based benchmarks within which it considers that the cost of supplying the MTAS in New Zealand is likely to lie.
90. Similarly, while the Commission would be required under an STD process to determine if a glide-path should be incorporated into the price for a designated service, the Commission does not consider that it is required to decide as a final matter for the purposes of a Schedule 3 Investigation whether a glide-path is appropriate in the event of regulation. The Commission has therefore considered the range of results which may apply in the event that a glide-path either is or is not incorporated into the factual of regulation.

MTRs on a second+second basis

91. In this Final Report, all MTRs are presented on a second+second⁶⁵ basis for comparability purposes, unless otherwise stated. Where the source for an MTR expresses rates on a minute+second⁶⁶ basis (eg the Deeds and the MTRs in the initial undertakings from Telecom and Vodafone), the Commission has scaled the MTR up by 23 percent in order to reach an equivalent second+second rate. The 23 percent scale up rate was referred to by CallPlus⁶⁷ at the MTAS Conference and was accepted by Telecom as reasonable at the MTAS Conference.⁶⁸ The Commission notes that this 23 percent figure is broadly consistent with the data responses the Commission has received during the MTAS Investigation.
92. Telecom have provided in its 11 February 2010 Undertakings for minute+second charging until the Rounding Date, which is defined as:⁶⁹
- 'Rounding Date* means the date upon which Telecom becomes technically able to invoice a per-second charge of 1/60th of the per-minute charge for each second of the duration of the Call. Telecom will notify such date to the Commission. Such date will be no later than 30 September 2010.'
93. Telecom's 11 February 2010 Undertaking will apply minute+second charging until the Rounding Date by dividing the per-minute charge payable by 1.23⁷⁰, the same factor as

⁶⁵ Second+second charging means that a call is charged at a per-second charge of 1/60th of the per-minute charge, for each second of the duration of a call.

⁶⁶ Minute+second charging means that a call is charged at the per-minute charge for the first minute of a call and then a per-second charge of 1/60th of the per-minute charge, for each second of the duration of a call after the first minute.

⁶⁷ p 171-172 of the MTAS Conference transcript

⁶⁸ p 172 of the MTAS Conference transcript.

⁶⁹ Telecom, *Undertaking in favour of the Commerce Commission under Schedule 3A of the Telecommunications Act 2001: Annexure 1 – Mobile Termination Terms: Schedule 4 – Charges*, 11 February 2010, page 52, clause 1.2.

⁷⁰ Ibid, page 53, clause 2.2(b).

applied by the Commission in converting minute+second MTRs to second+second MTRs. The Commission notes that the MTRs charged under the Telecom 11 February 2010 Undertaking prior to the Rounding Date are comparable to those that would result using the scaling up proposed by the Commission to convert minute+second MTRs to second+second MTRs in this Final Report, notwithstanding the actual charging methodology in the Telecom 11 February 2010 Undertaking not changing until the Rounding Date.

Appropriateness of the MTAS Investigation

94. As discussed in Section I, FTM termination rates are currently set with reference to the Deeds. A number of parties have raised concerns with the appropriateness of the MTAS Investigation against the background of the Deeds i.e. that the Commission should not investigate or seek to recommend regulation of the MTAS (which includes FTM termination) prior to the expiry of the Deeds in 2012.

95. Telecom submitted that:

“Telecom entered into the mobile termination rate deed with the Government for fixed-to-mobile termination services...for a period of 5 years in good faith. This investigation, less than two years into compliance with these commitments, significantly undermines that earlier outcome....{and} sends a negative signal to the industry as it materially increases the uncertainty around any future agreements.”⁷¹

96. Vodafone submitted that:

“We have also, reasonably, operated under the expectation that if we meet our obligations under the MTR Deed, the Minister of Communications and the Commission will not seek to change the regulatory settings agreed around FTM voice termination during the period covered by the Vodafone MTR Deed.”⁷²

97. The New Zealand Business Roundtable submitted that:⁷³

‘under no circumstances should the Commission recommend regulation of fixed-to-mobile voice termination because designation would overturn the provisions of the deeds for 2011 and 2012. This would be a flagrant breach of rule of law principles’.

98. Business New Zealand submitted that the Commission should:⁷⁴

- (a) {give} greater weighting to the potentially harmful impact of its recommendations on future Deeds ...;
- (b) {allow} the current Deed to be seen through in its entirety given the relatively small difference in timeframe between the application of the Commission’s recommendation and when the Deed ends ...;

⁷¹ Telecom, *Submission accompanying proposed undertaking*, 12 January 2009.

⁷² Vodafone letter to Osmond Borthwick of 12 January 2009 accompanying its undertakings of 12 January 2009.

⁷³ New Zealand Business Roundtable, *Submission on the Commerce Commission's Draft Report on Mobile Termination Services*, July 2009, page 13, para 7.6.

⁷⁴ Business New Zealand, *Submission by Business NZ to the Commerce Commission on Mobile Termination Access Services*, 28 July 2009, page 1, para 2.1.

99. The Commission is an independent regulator and accordingly is required to make the recommendations that it considers will best or be likely to best give effect to the promotion of competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand. The Commission commenced and has conducted the MTAS Investigation with this objective of promoting competition in mind.
100. While the existence of the Deeds, as a ‘quasi-regulatory’ outcome, is relevant to the Commission’s decision making, the Commission does not agree that this means it can not or should not have undertaken the MTAS Investigation.
101. The Commission notes that both the Deeds expressly contemplate regulatory intervention by the Commission into FTM termination rates, as both Deeds are expressly provided to terminate if FTM termination becomes a designated service or subject to an undertaking under the Act.⁷⁵ Further, the Commission has considered both the Deeds, along with the undertakings received by the Commission, in assessing the costs and benefits of the Commission’s recommendations.

Process considerations

102. Throughout the MTAS Investigation, the Commission has actively managed its process with a view to balancing fairly the competing tensions of access providers, access seekers and end-users. The Commission is satisfied that its process has been consistent with the principles of natural justice and the Act and has been fair and reasonable to all parties involved in the MTAS Investigation.
103. Vodafone, Telecom and 2degrees raised concerns at various points throughout the MTAS Investigation over the Commission’s process for certain aspects of the MTAS Investigation⁷⁶. The following paragraphs discuss some general process submissions made by those parties regarding the application of the undertakings process set out in Schedule 3A of the Act and timeframes generally for the MTAS Investigation⁷⁷ together with the Commission’s views with respect to such process considerations.

Parties’ submissions on timeframe for process

104. Vodafone has argued that the Commission has arbitrarily (i) limited the number of opportunities access providers may have to submit revised undertakings and (ii) set the deadlines for such submissions. Vodafone has also argued that access providers have not

⁷⁵ See Vodafone Deed, clause 2.3, and Telecom Deed, clause 6.4.

⁷⁶ See, for example, Letter from David Kreider (Vodafone) to Osmond Borthwick (Commission), *Re: Investigation into Mobile Termination Access Services (MTAS)*, (3 April 2009); Letter from Vanessa Oakley (Telecom) to Osmond Borthwick (Commission), *Investigation into Mobile Termination Access Services (MTAS): Process Issues*, (8 April 2009), letter from David Kreider (Vodafone) to Dr Mark Berry (Commission), *Re: Investigation into Mobile Termination Access Services (MTAS)*, (14 July 2009), letter from David Kreider (Vodafone) to Dr Ross Patterson (Commission), *Re: Investigation into Mobile Termination Access Services (MTAS)*, (20 August 2009); Letter from Juliet Jones (Vodafone) to Dr Ross Patterson (Commission), *Re: MTAS process and conference*, (25 September 2009); Vodafone New Zealand Submission on the Discussion Paper “A Guide to Regulatory Decision Making by the Commerce Commission for the Telecommunications Sector” dated 31 July 2009, (2 October 2009), 2degrees submission on Revised Undertakings (16 October 2009), paragraph 1.2 and 7, Letter from Bill McCabe (2degrees) to Dr Ross Patterson (Commission), *Process for the final stage of the MTAS Investigation* (16 December 2009)

⁷⁷ See the Commission’s website for all relevant correspondence with parties on process issues during the MTAS Investigation.

been given sufficient time to prepare and make submissions during the MTAS Investigation, for example prior to and at the MTAS Conference⁷⁸.

105. 2degrees has argued that the Commission's process for the MTAS Investigation has been longer than intended by the legislature when enacting the undertakings provisions in Schedule 3A of the Act⁷⁹
106. The Commission has an obligation to ensure a fair process for all interested parties, balancing the interests of access providers who may be affected by a regulatory change, with the interests of access seekers and end-users who may wish to see a regulatory change implemented promptly in order to address a competition concern.
107. The scheme of the Act, and in particular Schedule 3 and Schedule 3A, strongly indicates that the undertakings process is designed to be expeditious by providing opportunities to resolve key issues at the front end of the Schedule 3 process. Further, the Commission considers it is likely to be of significant benefit to end-users, thereby giving effect to section 18 of the Act, if the issues under consideration in the MTAS Investigation are resolved in a timely manner.
108. In setting the process for the MTAS Investigation, the Commission has also had regard to the benefits that a satisfactory commercial undertakings solution can provide. These benefits include a reduction in the costs of the regulatory process and earlier achievement of benefits for end-users.
109. The Commission has sought to give effect to all of these considerations in setting its process for the MTAS Investigation. For example, these competing timing considerations were taken into account by the Commission when reaching its decision as to whether additional invitations to submit revised undertakings should be afforded to the parties during the final stages of the MTAS Investigation⁸⁰. The Commission considers that the additional time associated with the process for addressing reciprocity between and acceptability of undertakings was appropriate in this respect for the long-term benefit of end-users.

Commission feedback and preliminary/final views

110. Telecom and Vodafone have argued that access providers did not have sufficient information about the proposed regulatory change and other matters (such as the Commission's cost-benefit assessment) and the Commission's "final" views on various matters in order for them to submit appropriately informed revised undertakings either before the Commission released its Draft Report or thereafter⁸¹.

⁷⁸ See footnote 76.

⁷⁹ See, for example, 2degrees submission on Revised Undertakings (16 October 2009), paragraph 1.2 and 7, Letter from Bill McCabe (2degrees) to Dr Ross Patterson (Commission), *Process for the final stage of the MTAS Investigation* (16 December 2009).

⁸⁰ See Letter from Dr Ross Patterson (Commission) to 2degrees, Telecom and Vodafone, *Process to address reciprocity issues in relation to revised MTAS undertakings*, (9 November 2009) and Letter from Dr Ross Patterson (Commission) to 2degrees, Telecom and Vodafone, *Process for the final stage of MTAS investigation*, (3 December 2009).

⁸¹ See footnote 76.

111. While the Commission has expressed preliminary or current views throughout the MTAS Investigation with a view to assisting parties in their submissions and preparation of undertakings, it is required to and has at all times maintained an open mind on the matters under consideration.
112. Any views expressed by the Commission prior to its Final Report for the MTAS Investigation have been clearly identified as preliminary or current views only. It would not be appropriate for the Commission to express “final” views or positions to parties prior to the Commission reaching its views in this Final Report.
113. The Commission is satisfied that, at each stage of the process, it has provided sufficient feedback to access providers who have submitted undertakings, in particular in relation to the adequacy and importance of the price terms and reciprocity in the price and non-price terms in the undertakings , so that an opportunity to substantially revise those undertakings in an appropriately informed manner prior to the release of this Final Report has been provided.

SECTION III: MARKET DEFINITION AND COMPETITION ASSESSMENT

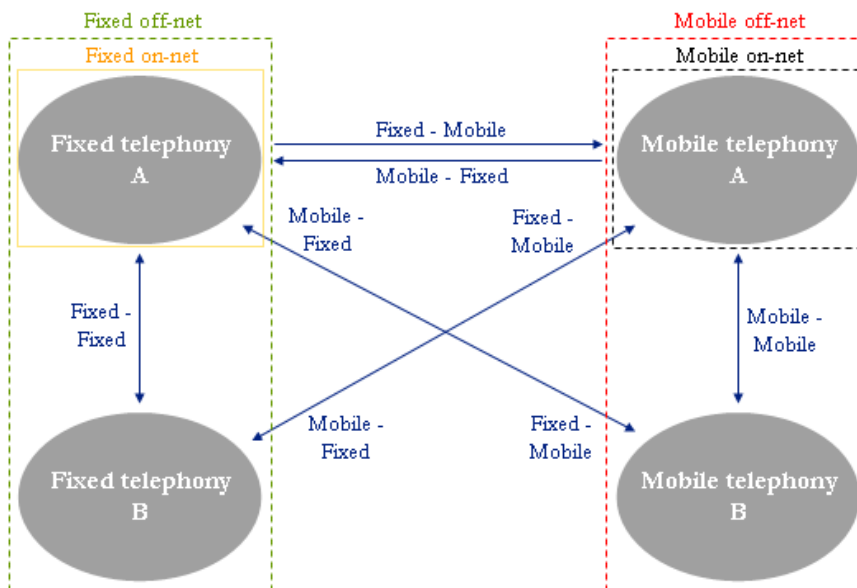
Introduction

114. This section assesses whether there are grounds for regulation of the MTAS. It forms part of the stage one assessment discussed in Section I. The structure of this section is as follows:
- the wholesale MTAS service is briefly described, along with the services for which it is used as an input;
 - the relevant markets are defined, including the market in which the MTAS is supplied and the related downstream markets in which the MTAS is used to supply services to end-users; and
 - competition in each of the relevant markets is assessed in order to determine whether there are competition concerns that could be addressed through regulation.
115. A more detailed summary of the Draft Report, and submissions and cross-submissions on the draft with respect to Market Definition and Competition Assessment issues, is set out in Appendix 3.

Mobile Termination Access Services

116. The mobile termination access services are wholesale inputs used in the supply of various downstream end-to-end services such as SMS, FTM and MTM calling services. The various traffic flows between different telecommunications networks is summarised in Figure 3 below:

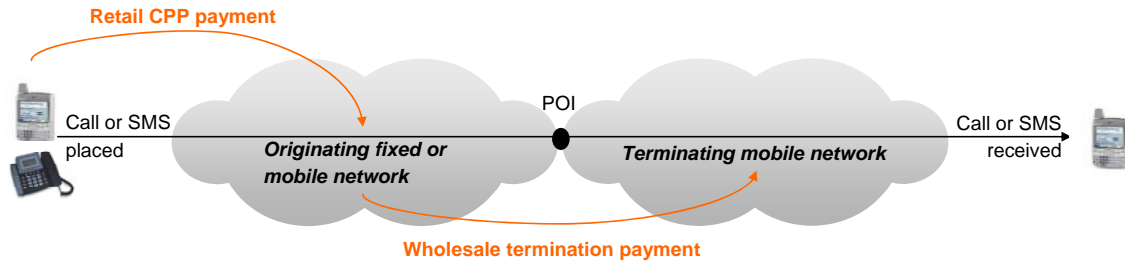
Figure 3: Traffic flows between telecommunications networks



Source: Commerce Commission, 2010.

117. For FTM and MTM voice calls, the call originates on the fixed or mobile network to which the calling party (the A-party) is connected. The call will at some stage be handed over to the mobile network on which the called party (B-party) is located, and will be ‘terminated’ or completed on that network. The same applies for text messages, however, like an MTM voice call, an SMS is both originated and terminated on a mobile network⁸².
118. The use of the MTAS to supply retail FTM, MTM and SMS services is outlined in Figure 4 below.

Figure 4: Use of MTAS to supply retail calling and SMS services



Source: Commerce Commission, 2010.

119. Under the calling party pays (‘CPP’) billing system that currently exists in New Zealand, the end-user making the call pays for the cost of making the call at the retail level. At the wholesale level, the originating fixed or mobile network operator makes a termination payment to the terminating mobile network operator, in order to cover that operator’s costs of terminating the call.

Market Definition

Introduction

120. Market definition provides a framework within which competition can be assessed by defining the boundaries of the markets relevant to the MTAS Investigation. As noted in the Draft Report, the Commission usually considers markets to have five dimensions:

- the goods or services supplied or purchased (the product dimension);
- the geographic area from which the goods or services are obtained, or within which the goods or services are supplied (the geographic dimension);
- the level in the production or distribution chain (the functional dimension);
- the timeframe or timing within which the market operates, where relevant (the temporal dimension);
- and
- the different customer types within a market, where relevant (the customer dimension).

121. Throughout this MTAS Investigation the Commission’s consideration of the relevant markets has focused on the product, geographic and functional dimensions.⁸³

⁸² The Commission notes that the Final Undertakings from Vodafone and Telecom adopt a more detailed definition of SMS which incorporates web-to-text messages (or similar services). However, the Final Undertakings specifically exclude a number of other message types (for example, push-to-talk, WAP-push, enhanced message service and instant messaging are excluded from Vodafone’s undertaking).

⁸³ As noted in paragraph 111 of the Draft Report, the Commission does not consider the customer and temporal dimensions to be of particular relevance to the market analysis.

Summary of market definition

122. In the Draft Report, the Commission’s preliminary view was that the following markets are relevant to the MTAS Investigation:
- the national wholesale market for mobile termination access services on each mobile network (“**wholesale MTAS market**”);⁸⁴
 - the national retail market for mobile services, including mobile subscription and origination services (encompassing MTM calling, SMS, MMS and data services) (“**retail mobile services market**”);⁸⁵ and
 - the national retail market for FTM and toll call services (“**retail FTM/tolls market**”).⁸⁶
123. The Commission has concluded that the markets defined in the Draft Report remain appropriate for the purposes of this MTAS Investigation. The Commission’s conclusions on the relevant markets, and the key issues considered in reaching these conclusions, are summarised below.
124. The Commission notes that submissions on the market definition tended to focus on the product and functional dimensions of the relevant markets. Few submissions were received in relation to the other market dimensions.⁸⁷

Wholesale MTAS market

Two-sided market

125. In the Draft Report the Commission defined a national wholesale market for MTAS on each mobile network. A separate downstream market for the provision of retail mobile services was also defined, as well as a downstream retail FTM/tolls market.
126. Submissions from Vodafone and Telecom suggested that the Commission reached incorrect conclusions in its assessment of the level of competition in the relevant markets by failing to account for the two-sided nature of telecommunications markets when conducting its analysis.⁸⁸
127. At the MTAS Conference, it was agreed that the following definitions capture the key characteristics of two-sided markets:⁸⁹

‘A mobile operator is a provider of a platform that allows the exchange of communications between the two different sides, the senders and the receivers. In this sense, a mobile firm should be analysed in the context of the ‘two sided markets’ framework.’

⁸⁴ See paragraphs 128 to 138 of the Draft Report.

⁸⁵ See paragraphs 144 to 146 of the Draft Report.

⁸⁶ See paragraphs 140 to 143 of the Draft Report.

⁸⁷ In relation to the geographic market, the Commission defined a national market for mobile termination in paragraph 137 of the Draft Report. The Commission’s conclusion is that a national market is appropriate for the purposes of this investigation.

⁸⁸ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 38-67; and Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 490-496.

⁸⁹ MTAS Conference Transcript, 2 September 2009, p 30-31.

‘A market is two sided if the platform can affect the volume of transactions by charging one side of the market more and reducing the price on the other side by an equal amount; in other words the pricing structure matters.’

128. In the Draft Report the Commission recognised that, in considering the product dimension of the wholesale MTAS market, the market is two-sided. The Commission does not agree with Vodafone’s and Telecom’s submissions that the two-sided nature of the market requires a broader product market definition. Furthermore, the Commission does not agree with Telecom’s submission that the two-sided nature of the market eliminates the termination bottleneck⁹⁰.
129. In its submission on the Draft Report, Telecom referred to a number of previous Commission decisions regarding newspaper/media mergers, which are typically regarded as examples of two-sided platforms.⁹¹ In that context, the value to parties of subscribing to one side of the platform (e.g., advertisers) increases with the number of parties on the other side (viewers or readers). While recognising this interdependency, in those decisions the Commission nevertheless defined distinct markets on each side (due to the different competitive dynamics on each side of the market).
130. For example, when considering an application from Fairfax New Zealand Limited regarding the acquisition of the Times Media Group Limited’s mastheads; the Rodney Times, the Coaster and the Outlook and associated assets (Decision 561), the Commission stated (emphasis added):⁹²

“Community newspapers compete against other community newspapers, and they also compete against other news/information providers and other advertising providers. Community newspaper advertising services compete against other forms of advertising services. Similarly, community newspapers compete against other media in respect of the provision of news and information. **The sides of the platform operate in distinct markets. While community newspapers are a platform, the sides of the platform exhibit different, though linked, competitive dynamics.**

Accordingly the Commission has analysed both sides of the platform, the print advertising market and the print news/information market.”

131. In the context of MTAS, the Commission recognised in the Draft Report that there is likely to be some interdependency between termination and subscription services. However, consistent with the market definition approach taken in the merger decisions referred to above (and with other regulators around the world that have looked at mobile termination),⁹³ the Commission defined a termination market that is distinct from the subscription/origination side. The Commission acknowledged the inter-relationship between the two sides of the market in the Draft Report through its consideration of the waterbed effect and the factors that are likely to influence this.

⁹⁰ This is discussed further in paragraphs 168 to 175 below.

⁹¹ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, footnote 10.

⁹² Commerce Commission, *Decision No. 561: Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving Fairfax New Zealand Limited and Times Media Group Limited*, 14 October 2005, p 9-10, paragraph 55-56.

⁹³ For example, the Commission noted in the Draft Report that the European Commission, the European Independent Regulators Group and the Australian Competition and Consumer Commission have all demonstrated support for the view that wholesale call termination on individual networks is the appropriate market when considering mobile termination.

132. Telecom has argued that MTRs are set to ensure the efficient operation of the two-sided market by balancing the demands of the two types of user (i.e. the calling and receiving parties).⁹⁴ It is implied in this submission that above-cost termination rates may be an efficient way of maximising overall demand for mobile services (across both sides of the market), by subsidising mobile subscription (for example, through handset subsidies). However, as Concept Economics note⁹⁵, relying on two-sided market arguments to justify above cost termination charges requires the existence of a positive network externality, the strength of which outweighs any calling externality⁹⁶.
133. Positive network externalities arise where subscribers to a mobile network benefit from being able to communicate with a large number of mobile subscribers. Mobile subscribers therefore generate a private benefit (that accrues to themselves) from being able to make and receive calls, as well as an external benefit that accrues to others from being able to contact and be contacted by them. However, in making a decision whether or not to subscribe to a mobile network, customers generally take their own private benefit into account but not the external benefit. This difference is the source of a network externality.
134. Calling externalities, on the other hand, arise where the benefits of a call are enjoyed not only by the party making (and paying for) the call, but also by the recipient of the call. In a similar manner to that described above, the party making the call will typically take into account their own private benefit when deciding how many calls to make (and their duration). To the extent that the receiving party also benefits, the level of calling may be too low from a societal perspective.
135. The presence of calling and/or network externalities could potentially be used to justify departure from a cost-based termination rate. For example, a positive network externality implies that the level of mobile subscription may be lower than the socially optimal level. One possible way of addressing this is to increase the mobile termination rate above cost in order to cross-subsidise subscription services. Conversely, in the presence of a calling externality, it might be appropriate to reduce the termination rate below cost in order to lower call prices and stimulate increased demand for calls.
136. No evidence has been presented to the Commission regarding the relative strength of calling and network externalities in the New Zealand market.⁹⁷ The Commission has concluded that neither calling nor network externalities are likely to justify any departure from cost-based termination rates.⁹⁸
137. Furthermore, the Commission notes that during this investigation, Vodafone and Telecom have agreed with the Commission's view that TSLRIC-based MTRs will result in efficient

⁹⁴ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 52.

⁹⁵ Concept Economics, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 27-28.

⁹⁶ Concept also argued that this would require advancing a second best argument, because the most direct way of addressing the network externality would be to set retail prices (rather than wholesale termination rates) to reflect marginal social cost.

⁹⁷ As noted in paragraph 363 below, 2degrees' economic experts appeared sceptical that there was a significant calling externality that needed to be taken into account. In addition, as noted in paragraph 138 below, Vodafone has stated that there is no evidence to depart from TSLRIC.

⁹⁸ This is consistent with the Commission's conclusion in the Draft Report. See paragraph 400 of the Draft Report.

and competitive outcomes. For example, in its cross-submission on the Commission's Draft Report, Vodafone argued that it is crucially important that the Commission:⁹⁹

‘... sets an access price for the MTAS that best promotes competition and efficiency more generally in all relevant markets. We agree with the Commission that such a pricing principle is TSLRIC.’

138. At the MTAS Conference, Vodafone repeated its view that:¹⁰⁰

‘... our position remains that there is no evidence, I don't think we've seen it in the last two days really, to depart from TSLRIC as a basis for thinking about what sensible and efficient termination rates should be ...’

139. In its closing statement at the conference, Telecom also referred to the consensus that had been achieved on a number of important principles:¹⁰¹

‘The most important of those is that I think everyone agrees with the principle of TSLRIC price termination rates. What's at issue here is how we get there.’

140. The Commission considers that the view that TSLRIC-based MTRs are efficient, and that there is no basis for departure from TSLRIC rates, supports the view that it is appropriate to focus on costs on the termination side of the market and that neither calling nor network externalities justify a departure from cost-based termination rates in this investigation. This contrasts with the argument put forward by Telecom (referred to in paragraph 132 above).

141. In relation to the functional dimension of the market, the Commission noted in the Draft Report that there are some complementarities between mobile termination and retail mobile services on the supply side, as network operators will supply mobile termination, subscription and calling services together. However, the Commission also noted that, on the demand side, wholesale customers purchase mobile termination services, while retail customers purchasing subscription and calling services. This discontinuity on the demand side supports the view that the market for mobile termination should be analysed separately from the market for retail mobile services.

142. Furthermore, the Commission notes that the two-sided nature of the mobile market does not eliminate the termination bottleneck on each mobile network, as mobile network operators face little constraint when setting prices for termination on their networks. This is discussed further in paragraphs 168 to 175 below.

143. In summary, while the Commission acknowledges the two-sided nature of the mobile market, and has explicitly considered two-sided market issues throughout this investigation (for example, the waterbed effect), the Commission's view remains that it is appropriate to define a wholesale market for termination on each mobile network that does not include mobile subscription and origination.

144. The Commission has concluded that:

- neither calling nor network externalities justify a departure from cost-based termination rates;

⁹⁹ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, paragraph 217.

¹⁰⁰ MTAS Conference Transcript, 3 September 2009, page 223.

¹⁰¹ MTAS Conference Transcript, 3 September 2009, page 231.

- there is a significant discontinuity on the demand side between purchasers of the service, where mobile termination is a service purchased by wholesale customers, and subscription and calling services which are purchased by retail customers; and
- the two-sided nature of the market does not negate the termination bottleneck on each mobile network.

Market for SMS termination

145. In the Draft Report, the Commission defined a national wholesale market for mobile termination access services on each mobile network which encompassed both voice termination and SMS termination. The Commission noted that:¹⁰²

‘...the individual mobile network operator supplying the termination service is the sole supplier of that service, and therefore has a monopoly over provision of MTAS on its own network. This is because, by definition, calls and SMSs made to that operator’s subscribers cannot be terminated by another mobile operator.’

146. In its submission on the Draft Report, Vodafone argued that SMS termination needs to be analysed differently from voice termination due to a number of specific features of SMS communication.¹⁰³ Fundamentally, Vodafone’s argument appears to rely on two main features of SMS:

- the two-way nature of SMS communication, where both parties send messages back and forth to each other thereby sharing the cost of the conversation; and
- the existence of close substitutes for SMS, such as instant messaging.

147. The Commission agrees with Vodafone that the two-way nature of SMS communication is likely to influence the traffic flows between networks.¹⁰⁴ In particular, the Commission considers that, all other things being equal, due to the use of a one-way communication channel for two-way communication, SMS traffic is more likely to be balanced than voice traffic.¹⁰⁵

148. However, as discussed further in paragraphs 272 to 289, other factors may result in a net outflow of SMS traffic from a small network. For example, heavy on-net discounting by large networks may result in a small entrant having to lower its prices, especially for off-net traffic, in order to be able to attract subscribers.¹⁰⁶ In this event, the relatively low retail off-net SMS price may stimulate relatively high volumes of off-net traffic from the small

¹⁰² Commerce Commission, *Draft Report on whether the MTAS should become designated or specified services*, 30 June 2009, p 57, paragraph 158.

¹⁰³ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 369 and 385-390.

¹⁰⁴ This is because in order to converse via SMS, end-users need to send messages back and forth to each other, whereas with a voice call, the originating party bears the cost but both the originating and receiving parties are able to fully participate in the conversation.

¹⁰⁵ Data supplied by Vodafone in its submission on the Draft Report indicates that if an SMS is sent off-net, an SMS will be sent in return with a probability of [] VNZRI. See paragraph 377 of Vodafone’s submission on the Draft Report.

¹⁰⁶ As noted in paragraph 229 below, a comparison of headline pre-paid prices shows that the off-net calling price offered by 2degrees (44cpm) is significantly below the off-net calling prices offered by Vodafone and Telecom (89cpm).

entrant's subscribers to the established operators' networks, potentially leading to traffic imbalance in the favour of the established operators.

149. At the MTAS Conference, Covec acknowledged that the probability of receiving an SMS in response to sending one will be influenced by prices.¹⁰⁷ This supports the view that a small entrant may be faced with a traffic imbalance should it be required to offer a lower off-net SMS price than the established operators in order to compete in the market.
150. The Commission's view remains that, as with voice termination, a mobile network operator has monopoly control of termination of SMS messages sent to its subscribers. The Commission considers that this is likely to be a significant contributing factor to current prevailing SMS termination rates being well in excess of the Commission's estimate of the cost of providing the service.¹⁰⁸
151. The Commission considers that instant messaging services are likely to act as a relatively weak alternative for SMS services. Instant messaging relies on both parties having web-enabled handsets with instant messaging applications. As a result, many handsets currently in circulation are unlikely to support this form of messaging as an alternative to SMS.
152. Furthermore, the Commission considers that there is a lack of consumer awareness of instant messaging services, which is likely to further reduce any potential for instant messaging to act as a constraint on the pricing of SMS at the retail level.
153. Consequently, the Commission considers that instant messaging is not a significant constraint on SMS.
154. In conclusion, the Commission considers that the competitive dynamics associated with voice termination and SMS termination are sufficiently similar for these two termination services to be captured together under the wholesale mobile termination access services market.

Retail mobile services market

155. In the Draft Report, the Commission defined a downstream market for mobile services, including mobile-originated calling services and mobile subscription services. The Commission noted that given that end-users have to purchase MTM services together with mobile access (through a subscription charge) and from the same supplier, these retail services can be considered to be supplied as a bundle.¹⁰⁹
156. As noted in paragraphs 125 to 144 above, the Commission considers that separate wholesale mobile termination markets and retail mobile services markets are appropriate for the purposes of this MTAS investigation.
157. Accordingly, the Commission has defined a downstream retail mobile services market that is consistent with that used in the Draft Report.

¹⁰⁷ MTAS Conference Transcript, 3 September 2009, p 209.

¹⁰⁸ As discussed in Section IV of this Final Report.

¹⁰⁹ The Commission also noted that SMS, MMS and data services are often sold as a bundle of retail mobile services, including mobile-originated calling and subscription services, and therefore, that these services are all provided in the same retail mobile services market. See paragraphs 144 to 146 of the Draft Report.

Retail FTM/tolls market

158. In the Draft Report, the Commission defined a downstream fixed-to-mobile and tolls market, which included national and international toll calling. This was consistent with the approach taken in the Commission's previous mobile termination investigation.¹¹⁰
159. An important consideration in the adoption of a joint FTM/tolls market in the previous mobile termination investigation was evidence that a high proportion of customers tend to purchase both tolls and FTM calls from the same supplier. For example, TelstraClear had previously noted that well over 90% of its customers using pre-selection take national and international tolls and fixed-to-mobile calls as a single basket.¹¹¹
160. Submissions and discussion at the MTAS Conference indicated that competition in the fixed-line market is increasingly occurring across broader bundles of services, including components such as local access, broadband and television, as well as FTM/tolls services. This suggests that it may be appropriate, at some stage in the future, to broaden the downstream FTM and tolls market that was defined in the Draft Report.
161. Although the Commission notes the increased prevalence of bundling of fixed-line services, it considers that the evidence presented is not sufficiently compelling to justify broadening the market definition at this time. Accordingly, the Commission has concluded that the downstream FTM/tolls market defined in the Draft Report remains appropriate for the purposes of this investigation.
162. The Commission notes that this approach is consistent with the view reached by the ACCC when reviewing the declaration of the mobile terminating access service in May 2009.¹¹²
163. When declaring MTAS in 2004, the ACCC found that FTM calls are provided in the same market as national long-distance (NLD) and international direct dialling (IDD) calls on the basis that they were part of the same single basket of preselected services offered nationwide at a retail level. The ACCC did not include internet services in the same market as the preselected bundle of services because they were not usually offered in the same bundle. In its May 2009 report, the ACCC retained the same downstream markets that were defined in its original 2004 report.

Commission's conclusion on relevant markets

164. The Commission has concluded that the following markets are relevant to this MTAS investigation:
- the wholesale MTAS market;
 - the retail mobile services market; and
 - the retail FTM/tolls market.

¹¹⁰ Commerce Commission, *Schedule 3 investigation into regulation of mobile termination: Final Report*, 9 June 2005.

¹¹¹ *ibid*, p 38, paragraph 129.

¹¹² ACCC, *Mobile terminating access service: An ACCC Final Report on reviewing the declaration of the mobile terminating access service*, May 2009.

Competition Assessment

Introduction

165. In determining whether or not to recommend that MTAS become a regulated service under Schedule 1 of the Act, the Commission has assessed the level of competition within the markets that are relevant to this investigation. As noted in the Draft Report, the factors that the Commission generally considers to be pertinent to the assessment of whether there is limited competition in a market are listed below:¹¹³

Existing Competition:

- the number and relative size of competitors in the market, including where possible an assessment of trends in shares over time;
- the extent to which there is product differentiation;
- the degree to which competitors engage in independent rivalry;
- the degree of vertical integration;
- the absence of barriers to customer switching;
- the movement in prices over time, and any evidence of their broad relationship to underlying costs; and
- evidence that the access provider is acting inefficiently or achieving excess returns.

Potential Competition:

- the potential for entry and the significance of any barriers to entry and expansion that may exist, and evidence of recent entry and/or expansion;
- the movement in prices over time, and any evidence of their broad relationship to underlying costs; and
- evidence that the access provider is acting inefficiently or achieving excess returns.

Other Competition Factors:

- the existence of any countervailing power; and
- the constraints imposed by the regulatory environment.

166. The Commission's conclusions on the level of competition in each of the relevant markets, and the key issues considered in reaching these conclusions, are summarised below.

167. Appendix 3 contains a summary of the competition assessment contained in the Commission's Draft Report, as well as a summary of submissions and cross-submissions received in response to the Draft Report with respect to competition assessment matters.

¹¹³ See Commerce Commission, *Decision No. 497: Determination on the TelstraClear Application for Determination for "Wholesale" Designated Access Services*, 12 May 2003.

Wholesale MTAS market

Existing competition

168. In the Draft Report, the Commission's preliminary view was that mobile network operators are subject to limited competition in the wholesale market for mobile termination access services on their respective networks, as:
- other mobile networks provide little or no constraint in each of the wholesale MTAS markets; and
 - countervailing buyer power in the hands of fixed network operators is unlikely to constrain the mobile networks in supplying termination services.
169. In its submission on the Draft Report, Telecom stated that the Commission's preliminary view in the Draft Report that "the two-sided nature of the market does not imply that mobile networks are constrained when setting prices for termination on their networks" is incorrect. In support of this view, Telecom submitted that market power in a two-sided market is the ability to earn economic rents by sustaining prices on both sides of the market above competitive levels, rather than the ability to sustain prices above marginal cost on one side of the market. Telecom submitted that, provided that the market is sufficiently competitive, the feedback effect will drive MTRs down to economically efficient levels.¹¹⁴
170. As noted in paragraph 128 above, the Commission agrees with Telecom that the market is two-sided, and acknowledges that this has a number of implications for competition analysis. However, the individual mobile network operator supplying the termination service is the sole supplier of termination of traffic to its subscribers, and consequently, each mobile network operator has a monopoly over the provision of MTAS on its own network.
171. In addition, due to the presence of calling party pays billing (as is the case in New Zealand), mobile subscribers do not pay to receive calls and consequently are unlikely to take the price faced by other end-users (in order to call their number) into account when selecting the network that they wish to subscribe to. As a result, the Commission's view is that there is no constraint from existing competition in any of the termination markets.
172. This aligns with the view expressed by Concept Economics, who noted that the existence of substantial market power in the case of termination is entirely consistent with the literature on two-sided markets.¹¹⁵ This is on the basis that the terminating network has a monopoly over call termination to its customers.
173. The Commission notes that during discussions at the MTAS Conference, NERA and Covec acknowledged the existence of the termination bottleneck, noting that the relevant network acts as the gateway to reach a particular subscriber.¹¹⁶
174. The Commission considers that mobile network operators are subject to limited competition in the wholesale market for MTAS on their respective networks.

¹¹⁴ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 57.

¹¹⁵ Concept Economics, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 28.

¹¹⁶ MTAS Conference Transcript, 2 September 2009, p 35-37.

175. The Commission considers the termination bottleneck, and the corresponding market power associated with this bottleneck, has led to current termination rates being well in excess of cost. The prevailing MTM and FTM termination rate is 15cpm (on a minute+second basis, or 18.45cpm on a second+second basis), while the prevailing SMS termination rate is 9.5 cpSMS.¹¹⁷ These MTRs are significantly above the Commission's 2009 estimate of the cost of providing the termination service of 5.4-8.3 cpm for voice termination and 0.95 cpSMS for SMS termination (as set out in Section IV of this Final Report).

Potential competition

176. As outlined earlier, the relevant wholesale market has been defined as the national market for MTAS on each mobile network. In the Draft Report the Commission noted that:
- no other party is able to terminate calls to subscribers of a particular mobile network; and
 - under the CPNP billing method, an increase in termination charges is unlikely to incentivise the call recipient to switch to another mobile network.
177. As a result, in the absence of technological developments that might allow direct access to a mobile subscriber for the purposes of terminating voice calls, there appears to be an absolute barrier to entry in the wholesale MTAS market.
178. Accordingly, the Commission considers that existing suppliers of mobile termination services will not be constrained by potential competition to any significant extent.

Other competition factors

179. The Commission has also considered whether there are other factors which may act as a constraint on existing participants in the market. These factors include whether customers of, or suppliers to, existing participants in the market possess any countervailing power.
180. Purchasers of termination services from a mobile network operator include other fixed and mobile network operators. These same operators are also likely to supply (fixed and mobile) termination services, and therefore, may be a source of countervailing power.
181. For example, a mobile subscriber calling a fixed-line subscriber involves a call which terminates on the fixed-line network of the called party. In this case, the fixed network operator supplies the termination service to the mobile network originating the call. However, as fixed interconnection is a regulated service under the Act, the Commission considers that the countervailing power in the hands of fixed network operators is unlikely to constrain mobile networks in supplying termination services.
182. Similarly, in respect of MTM termination, in order to enable cross-network traffic, mobile network operators must obtain interconnection services from competing mobile networks. The Commission considers that Vodafone and Telecom may possess some form of countervailing power in respect of interconnection with each others network, given that

¹¹⁷ However, the Commission notes that Vodafone has a commercial interconnection agreement with 2degrees which contains MTRs that differ from these rates.

these operators are established in the marketplace and have approximately similar customer bases.

183. The Commission considers, however, that a small new entrant is unlikely to possess countervailing power that will significantly constrain the established operators in supplying MTM termination services.¹¹⁸

Commission's conclusion on competition in the wholesale MTAS market

184. The individual mobile network operator supplying the termination service is the sole supplier of termination of traffic to its subscribers, and consequently, each mobile network operator has a monopoly over the provision of MTAS on its own network. As a result, the Commission considers that existing and potential competition will not provide any significant constraint in the wholesale MTAS market.
185. Accordingly, the Commission has concluded that mobile network operators are subject to limited competition in the wholesale market for mobile termination access services on their respective networks.

Retail mobile services market

Existing competition - Market overview

186. Since release of the Commission's Draft Report, 2degrees has launched New Zealand's third mobile phone network. Accordingly, there are now three mobile network operators in New Zealand; the new entrant, 2degrees, and the two established operators, Vodafone and Telecom.
187. 2degrees launched its network on 4 August 2009, and currently provides coverage using its own cell sites in Auckland, Wellington, Christchurch, and Queenstown, while relying on roaming via Vodafone's GSM network to provide coverage outside these areas. In a media release prior to its launch, 2degrees stated that it has committed over \$250 million in investment and is building a 2G and 3G network that is HSPA+ capable.¹¹⁹
188. As noted in the Commission's latest telecommunications market monitoring report, mobile phone connections grew by three per cent in the year to 30 June 2009, reaching 4.7 million. This equates to a penetration rate of 109 per cent of the population.¹²⁰ The number of mobile phone connections is illustrated in Figure 5 below.
189. Vodafone's market share of subscribers is estimated to be 53% as at the end of June 2009, while Telecom's market share is estimated to be 47%. As 2degrees had not yet launched as at 30 June 2009, accurate market share information is not yet available. However, on 12

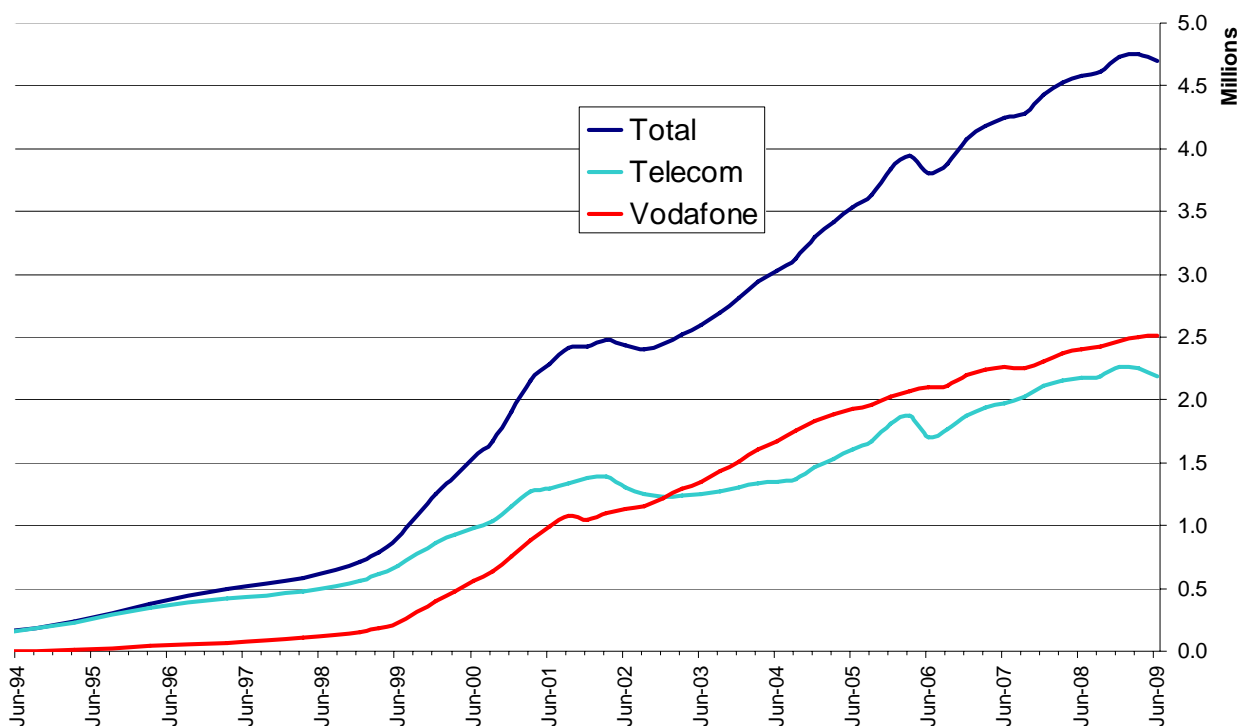
¹¹⁸ The Commission considers that this may be exacerbated by the high proportion of on-net traffic carried on the networks of the established operators, Vodafone and Telecom.

¹¹⁹ http://www.2degreesmobile.co.nz/c/document_library/get_file?uuid=57f85444-cb00-4bbc-8c3d-a49cf924bf81&groupId=10128.

¹²⁰ Commerce Commission, *Telecommunications market monitoring report: Six months to June 2009*, 12 November 2009, p 7, paragraph 18.

February 2010, 2degrees announced that 206,000 people are actively using its services.¹²¹
 This equates to approximately 4.4% of a total mobile subscriber base of 4.7 million.

Figure 5: Mobile Phone Connections



Source: Commerce Commission (2009)

190. The Commission has also calculated the market shares of mobile revenue and average revenue per user (ARPU) based on information from Telecom and Vodafone in response to the Commission's MTAS data questionnaire. Vodafone's market share of mobile revenue has increased slightly over the period from 2006 to 2008. The results are set out in Table 3 below.

Table 3: Mobile market share and average revenue

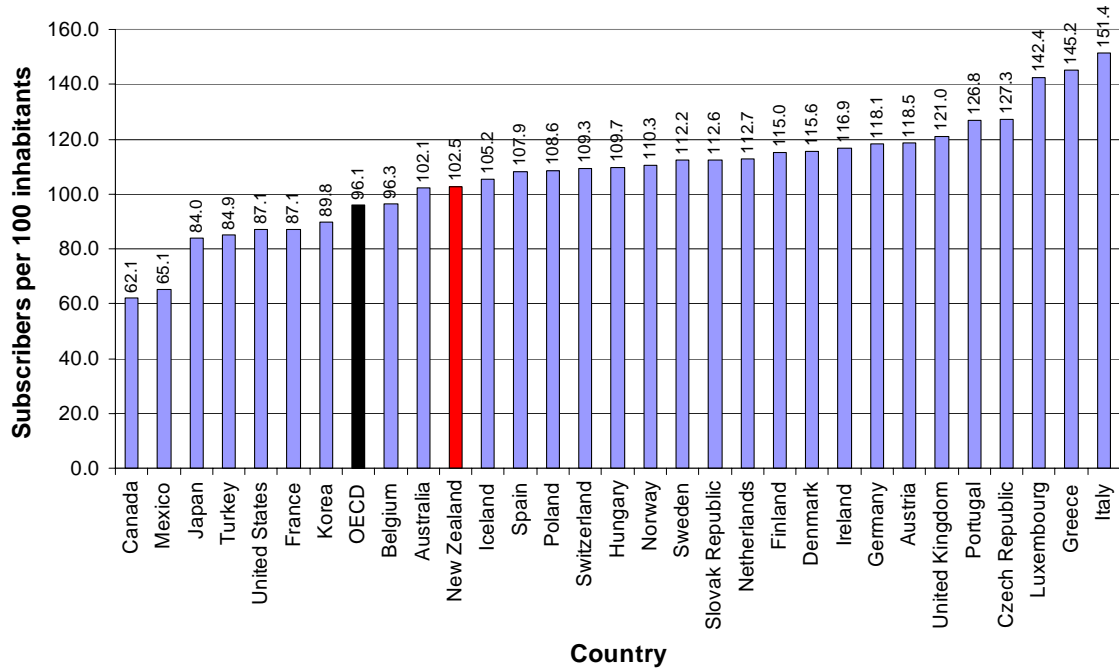
| | 2006 | 2007 | 2008 |
|-------------------------------------|---------|---------|---------|
| Telecom total mobile revenue (\$m) | [] TRI | [] TRI | [] TRI |
| Telecom market share | [] CRI | [] CRI | [] CRI |
| Vodafone total mobile revenue (\$m) | [] VRI | [] VRI | [] VRI |
| Vodafone market share | [] CRI | [] CRI | [] CRI |
| Telecom overall mobile ARPU | [] TRI | [] TRI | [] TRI |
| Vodafone overall mobile ARPU | [] VRI | [] VRI | [] VRI |

Source: Telecom, Vodafone (2009).

¹²¹ See <http://blog.2degreesmobile.co.nz/media/206000-new-zealanders-join-2degrees-mobile-in-first-six-months/>

191. Mobile penetration rates in 2007 across the 30 OECD countries are presented in Figure 6 below. This indicates that New Zealand's mobile penetration rate of 102.5% in 2007 was broadly in line with most OECD countries. As noted in paragraph 188 above, New Zealand's mobile penetration rate in June 2009 is estimated to be 109%.

Figure 6: OECD Cellular Mobile Penetration (2007)



Source: OECD Communications Outlook (2009)

192. In its cross-submission on the Draft Report, Vodafone conceded that when the Commission first started considering mobile termination rates in 2004, there was room for improvement in the retail mobile market in New Zealand. This however, is at odds with statements made by Vodafone in 2004, where Vodafone argued that:¹²²

‘The mobile services market is workably competitive – We present data on retail prices, the development of services, and churn between the networks that sheds further light on the nature and extent of competition for mobile subscribers. We criticise the use of the OECD figures, arguing that they do not present a reliable picture of domestic competitive conditions.’

193. In its cross-submission on the Draft Report, Vodafone argued that competition in the mobile market is significantly more healthy than it was in 2004. In support of this, Vodafone pointed to a number of changes that have occurred since that time, including:
- the launch of a third mobile network by 2degrees and the introduction of a number of mobile virtual network operators (MVNOs);
 - a number of regulatory, government and commercial activities such as mobile number portability, mobile co-location, national roaming, and its commercial mobile termination deal with 2degrees; and

¹²² Vodafone, *Submission on Schedule 3 investigation into regulation of mobile termination*, 30 November 2004, p 14.

- significant improvements in retail market outcomes, such as decreases in average revenue per minute and per SMS and corresponding increases in usage.¹²³

194. Many of these issues, as well as other factors which are relevant to the level of competition in the retail mobile services market, are addressed throughout this competition assessment.

Existing competition - Industry concentration

195. The market share of mobile network operators in OECD countries in 2007 is presented in Table 4 below. Based on the data presented in the 2009 Communications Outlook, New Zealand is the only OECD country reported to have only two mobile network operators as at 2007.¹²⁴

Table 4: Market share of mobile network operators in the OECD, 2007

Percentage market share based on number of subscribers

| Number of operators: | 1 | 2 | 3 | 4 | 5 |
|----------------------|------|------|------|------------------|-----|
| Australia | 43.3 | 32.6 | 16.7 | 7.4 | |
| Austria | 40.4 | 33.4 | 20.9 | 5.3 | |
| Belgium | 45.6 | 31.4 | 23 | | |
| Canada | 37.8 | 29.2 | 28.7 | 2.3 | 2 |
| Czech Republic | 40.4 | 39.3 | 20.3 | | |
| Denmark* | 34.3 | 21 | 20.3 | 10.6 | 5.3 |
| Finland | 39.2 | 38.4 | 20.3 | 2.1 ¹ | |
| France* | 43.8 | 33.9 | 17 | 6.3 | |
| Germany | 36.8 | 34.7 | 15.2 | 13.3 | |
| Greece | 38.6 | 33.5 | 27.9 | | |
| Hungary | 44 | 35.1 | 20.9 | | |
| Iceland | 60.1 | 38.2 | 1.3 | 0.4 ² | |
| Ireland | 44.5 | 32.3 | 18.9 | 4.3 | |
| Italy | 40.5 | 33 | 17.4 | 9.1 | |
| Japan | 49.7 | 28.1 | 17.4 | 4.3 | 0.5 |
| Korea | 50.5 | 31.5 | 18 | | |
| Luxembourg | 52.6 | 36.6 | 10.8 | | |
| Mexico | 73.3 | 18.3 | 5.9 | | |
| Netherlands | | | | | |
| New Zealand | 52.2 | 47.8 | | | |
| Norway | 57.1 | 23.4 | 9.2 | 7.6 | 2.7 |
| Poland | 34.2 | 32.5 | 31.1 | 2.1 | 0.1 |
| Portugal* | 46.7 | 38.7 | 14.6 | | |
| Slovakia | | | | | |
| Spain | 45.3 | 30.7 | 22.6 | 0.9 | 0.5 |
| Sweden | | | | | |
| Switzerland | 61.8 | 18.7 | 18.7 | 0.8 | |
| Turkey | 57.1 | 26.9 | 16 | | |

¹²³ Vodafone, *Cross-submission on MTAS Draft Report*, 18 August 2009, p 21-23.

¹²⁴ No information is provided for the Netherlands, Slovakia, or Sweden. In paragraph 187 of the Draft Report, the Commission noted that New Zealand and Slovakia were the only two countries in the OECD that had only two competing mobile network operators.

| | | | | | |
|-----------------------------|------|------|------|------|-----|
| United Kingdom ³ | 27.2 | 23.6 | 22.4 | 21.4 | 5.4 |
| United States | 31.4 | 29.4 | 20.3 | 12.9 | 6 |

*Secretariat estimates.

1. Includes subscribers for a small network based mobile operator and two MNVOs.

2. Includes two small operators.

3. Includes MVNO subscribers.

Source: OECD Communications Outlook (2009)

196. With the launch of 2degrees, New Zealand now has three competing mobile network operators. The Commission notes, however, that the majority of OECD countries were reported to have four or more MNOs as at 2007.¹²⁵
197. The Commission has used the Herfindahl Hirshman Index ('HHI')¹²⁶, which is a standard measure of industry concentration that takes into account both the number of firms in a market as well as differences in their sizes, to estimate the level of concentration of the New Zealand mobile market. The Commission estimates the HHI as at 30 June 2009 to be 5018¹²⁷, indicating that the New Zealand mobile market is highly concentrated.
198. As noted in the Draft Report, the Commission considers that this high concentration is likely to limit the degree of competitive pressure in the New Zealand mobile market.

Existing competition - Network evolution

199. In the Draft Report, the Commission summarised the evolution of the mobile networks of Telecom and Vodafone.¹²⁸
200. In terms of Telecom's evolution, the earlier analogue AMPS network was superseded by its digital D-AMPS (or TDMA) network, which enabled Telecom to supplement basic voice services with advanced services such as Caller ID. Telecom launched its CDMA network in 2001, allowing a greater range of data applications. Subsequent upgrades of the CDMA network supported higher data speeds.
201. BellSouth entered New Zealand with its digital GSM network in 1993, which had a competitive advantage over Telecom's prevailing AMPS-based services. BellSouth's network could offer a broader range of services (including SMS or text messaging), and also provided customers with greater roaming options outside of New Zealand. Vodafone purchased BellSouth's network in 1998, and upgraded the GSM network in response to Telecom's CDMA roll-out.

¹²⁵ 17 of the 27 countries for which data is reported in Table 4 had four or more MNOs.

¹²⁶ The HHI is defined as the sum of the squares of market shares. A duopoly involving two firms of equal size has a HHI of 5000 (sometimes expressed as 0.5), while a duopoly involving one firm with 75% and the other with 25% has a higher HHI of 6250 (0.625). A monopoly market would have a HHI of 10000 (1.0).

¹²⁷ Based on the information contained in paragraph 189 above, the Commission has also estimated the HHI post the entry of 2degrees. Assuming market shares of approximately 50%, 46% and 4% for Vodafone, Telecom and 2degrees, respectively, the HHI is estimated to be 4632. A value of the HHI above 1800 is typically considered to refer to high concentration.

¹²⁸ See paragraphs 192 to 197 of the Draft Report.

202. In 2005 Vodafone launched its 3G UMTS network, which utilises Wideband CDMA (W-CDMA) as the underlying air interface. Higher speeds and a wider range of services were made available as a result of the introduction of 3G technology in New Zealand.¹²⁹ In October 2006, Vodafone upgraded its 3G network with the introduction of High Speed Downlink Packet Access (HSDPA), leading to increased connection speeds.¹³⁰
203. In June 2007, Telecom publicly announced plans to develop a UMTS (3G) network, based on the same W-CDMA technology used by Vodafone.¹³¹ The XT network was launched in May 2009 and provides nationwide 3G coverage primarily utilising spectrum in the 850 MHz band.¹³² As a result of the launch of the XT network, Telecom and Vodafone are now competing in the mobile market using the same technology for the first time.
204. In February 2009, Vodafone announced plans to extend its 3G coverage to 97% of the population¹³³ by 31 May 2009 using 900 MHz spectrum.¹³⁴ Vodafone had previously announced that it would offer nation-wide 3G coverage by April 2010. The accelerated expansion of Vodafone's 3G coverage appears to have been in response to the launch of Telecom's XT network in May 2009.
205. In August 2009, 2degrees launched a GSM 900 MHz network, with data provided using both GPRS¹³⁵ and EDGE¹³⁶ technology. The 2degrees network is 2100 MHz 3G capable, however, 3G services are yet to be enabled.¹³⁷ In a recent media release, 2degrees indicated that 3G services will be offered in the market "throughout 2010".¹³⁸
206. In its submission on the Draft Report, NERA argued that the Commission presented evidence of the evolution of network technology in the Draft Report, but failed to recognise this as a form of vigorous competition between Telecom and Vodafone.¹³⁹ Similarly, Telecom submitted that competitive pressures in the New Zealand market have played out more in relation to coverage-based competition than in many other markets, but there has also been service-based and price-based competition.¹⁴⁰
207. Vodafone submitted that New Zealand is now world leading in terms of product innovation and 3G network deployment, noting that there are now two fully developed 3G mobile networks in New Zealand that both cover 97 per cent of the population. Vodafone noted

¹²⁹ For example, video calling and mobile TV.

¹³⁰ <http://www.vodafone.co.nz/personal/about/media-centre/2006-media-releases/redefines-broadband-services.jsp>

¹³¹ http://www.telecom-media.co.nz/releases_detail.asp?id=3455&page=14&pagesize=10

¹³² http://www.telecom-media.co.nz/releases_detail.asp?id=3593&page=1&pagesize=10

¹³³ The Commission notes that land area coverage is significantly lower, being estimated at approximately 40% in 2007. See, for example, the file *Public version of results of 2005-06 and 2006-07 TCF telecommunications industry questionnaire*, cells A17-H17 on sheet 2006-07, at

<http://www.comcom.govt.nz/IndustryRegulation/Telecommunications/MonitoringandReporting/ContentFiles/Documents/Public%20version%20of%20results%20of%20Telecommunications%20Industry%20Questionnaire%20for%202005-06%20and%202006-070.XLS>.

¹³⁴ <http://www.vodafone.co.nz/about/media-centre/2009-media-releases/3g-coverage-for-all-new-zealanders.jsp>

¹³⁵ General packet radio service (GPRS) is a packet oriented mobile data service. 2G cellular systems combined with GPRS are often described as 2.5G, providing data rates of 56-114 kbit/s.

¹³⁶ Enhanced Data rates for GSM Evolution (EDGE) is a backward-compatible digital mobile phone technology that allows improved data transmission rates, as an extension on top of standard GSM.

¹³⁷ See the FAQs page on the 2degrees website: www.2degreesmobile.co.nz

¹³⁸ 2degrees media release, *2degrees Mobile broadens network with 3G Spectrum*, 5 November 2009.

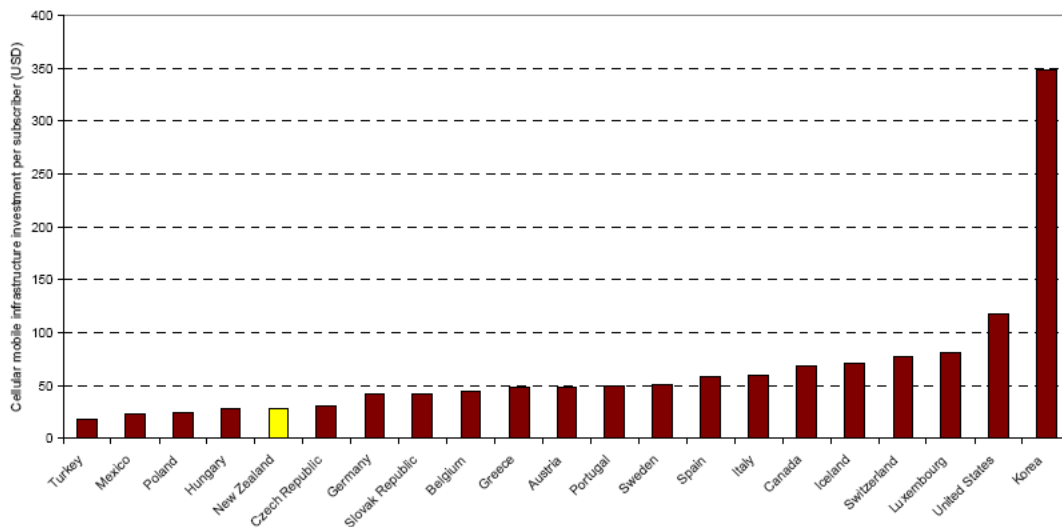
¹³⁹ NERA, *Submission on the MTAS Draft Report*, 28 July 2009, p 4.

¹⁴⁰ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 28.

that, in contrast, Vodafone's 3G network deployment is only in the metropolitan areas of Australia and Ireland; and only covers 90 percent of the population in the UK.¹⁴¹

208. Although there is some evidence of competition between Vodafone and Telecom in relation to the deployment of new technologies and expansion of coverage, the Commission notes that if the New Zealand mobile market was workably competitive, competition would be expected to flourish across a much wider range of dimensions, including service quality, coverage and price.
209. Further, as Concept Economics noted in its cross-submission, Vodafone New Zealand was relatively slow in adopting 3G technology, with its 3G network launch in 2005 coming two years after near simultaneous launches by Telstra and Hutchison in Australia.¹⁴²
210. Concept also demonstrated in its cross-submission on the Draft Report that average investment per subscriber is low in New Zealand compared to other OECD countries. This is illustrated in Figure 7 below.

Figure 7: Mobile investment per subscriber, average over the years 2003 to 2007



Source: Concept Economics (2009)¹⁴³

211. Although this indicates that investment in mobile networks may have been historically low in New Zealand, the Commission notes that since 2007 significant investment has been undertaken. In 2009 alone:
- Vodafone completed the expansion of its 3G network to cover 97% of the population;
 - Telecom launched its XT network based UMTS technology¹⁴⁴; and

¹⁴¹ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 31, paragraph 95.

¹⁴² Concept Economics, *Cross-submission on MTAS Draft Report*, 18 August 2009, p 14.

¹⁴³ Concept Economics, *Cross-submission on MTAS Draft Report*, 18 August 2009, p 15. Data sourced from OECD Communications Outlook 2009, Tables 4.11 and 4.18.

- 2degrees launched New Zealand's third mobile network¹⁴⁵.
212. The Commission considers that the increased investment in recent years by Vodafone and Telecom is likely to have been driven to some extent by the anticipated entry of 2degrees into the New Zealand market. In addition, as noted in the Draft Report, Vodafone appeared to accelerate the expansion of its 3G coverage in response to the launch of Telecom's XT network in May 2009.
213. The level of competition across a range of other dimensions, including price, is discussed in the following sections.

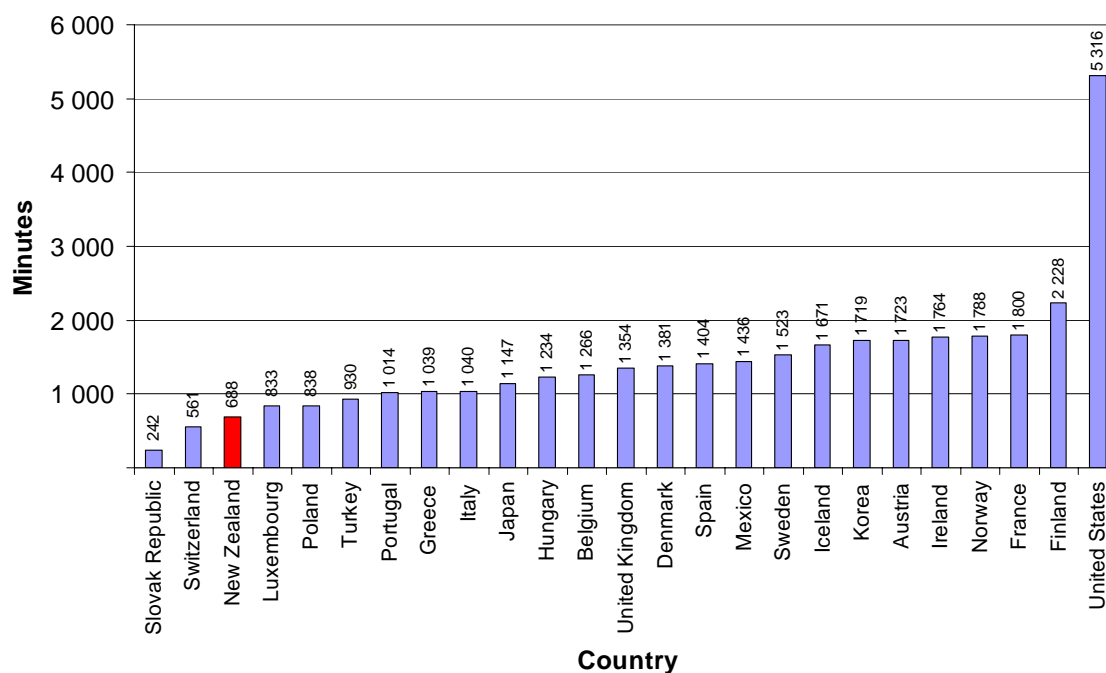
Existing competition - Pricing and usage of voice services

214. In the Draft Report, the Commission's preliminary view was that the volume of outgoing mobile minutes in New Zealand is relatively low while average revenues per minute are relatively high.¹⁴⁶
215. Data from the OECD Communications Outlook 2009 on mobile traffic per subscriber is depicted in Figure 8 below. This indicates that NZ had the third lowest cellular mobile traffic per subscriber in the OECD in 2007.

¹⁴⁴ In a media release dated 27 April 2009, Telecom noted that it "is investing over \$574 million in the new network over a two year period which reflects investment in the core network, retail stores and services, and extensive investment in fibre to ensure an unparalleled customer experience". See Telecom media release, *World class 3G mobile network comes early*, 27 April 2009.

¹⁴⁵ As noted in paragraph 187 above, 2degrees has indicated that it has committed over \$250 million in investment in its network.

¹⁴⁶ Commerce Commission, *Draft Report on whether the MTAS should become designated or specified services*, 30 June 2009, p 73, paragraph 225.

Figure 8: Cellular mobile traffic per mobile subscriber per year (2007)¹⁴⁷

Source: OECD Communications Outlook (2009)

216. In its submissions, Vodafone acknowledged that voice usage is low in New Zealand relative to some other parts of the world, however, disagreed that this is due to high retail prices for voice calls. Rather, Vodafone argued that the low mobile voice usage in New Zealand is due to the presence of free local calling and relatively low retail prices for SMS. For example, Vodafone submitted that the presence of free local calls is likely to lead to a natural bias towards consumers making more calls using landline networks where possible.¹⁴⁸
217. The Commission notes, however, that Concept Economics submitted that in the US fixed local calls are almost universally free (and monthly fixed line rentals are significantly lower than in NZ), yet despite this mobile usage is by far the highest in the OECD.¹⁴⁹ Furthermore, although it is possible that some end-users will use text messaging as a substitute for voice calls¹⁵⁰, the Commission considers that this alone is unlikely to explain New Zealand's voice usage relative to other OECD countries.
218. In its cross-submission on the Draft Report, Vodafone noted that its average retail price per minute for voice calls has fallen by 18 percent on average across each of the years between 2004-05 and 2008-09. Vodafone also noted that its volume of voice calls per customer has increased on average by 15 percent each year over the same period.¹⁵¹

¹⁴⁷ No data was available for 2007 for Australia, Canada, Czech Republic, Germany and the Netherlands.

¹⁴⁸ Vodafone, *Cross-submission on MTAS Draft Report*, 18 August 2009, p 27.

¹⁴⁹ Concept Economics, *Cross-submission on the MTAS Draft Report*, p 12.

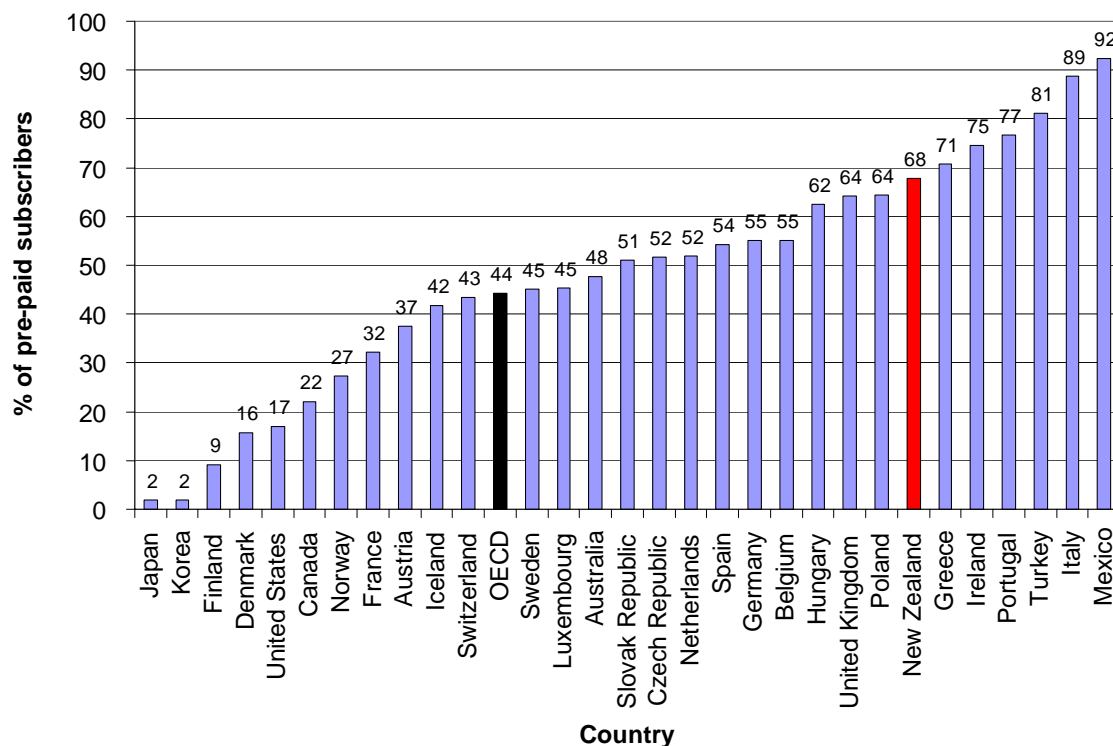
¹⁵⁰ Particularly price-sensitive end-users, purchasers of bundles of SMS and younger end-users.

¹⁵¹ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 21, paragraph 65.

219. The Commission considers, however, that the increases in volumes/decreases in prices in recent years in New Zealand are likely to have largely been driven by the introduction, and increasing uptake, of cheap on-net plans such as Bestmates and Family. The Commission considers that such plans may create the illusion of increased competition by generating significant increases in usage and decreases in average revenue per minute. However, on-net pricing plans such as these can actually have the effect of making entry and expansion more difficult for a new entrant due to the creation of closed networks.
220. In relation to OECD benchmarking, the Commission notes the submission from Concept Economics suggesting that the Vodafone Base plans (now referred to as Vodafone 'Easy' plans) artificially inflate New Zealand's ranking as they appear to have been developed purely to fit the OECD benchmarking methodology.¹⁵²
221. The Commission agrees with Concept Economics that these plans could potentially have been designed to perform well in the OECD benchmarking. However, the restrictive conditions on these plans have recently been removed and accordingly the Commission now includes the Vodafone Easy plans when reporting the results of the OECD benchmarking. The Commission notes, however, that it was recently reported that approximately 14,000 customers subscribe to the Easy plans¹⁵³, which only equates to approximately 0.5% of Vodafone's mobile subscriber base.
222. Figure 9 below depicts the percentage of pre-paid subscribers across all 30 OECD countries in 2007. With 68 percent of mobile subscribers as pre-paid customers, New Zealand has a higher proportion of pre-paid customers than most mobile markets in the OECD.

¹⁵² Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 9.

¹⁵³ <http://www.stuff.co.nz/the-press/news/2750803/OECD-figures-make-mobile-rates-look-good>

Figure 9: OECD Mobile Pre-paid Subscriptions (2007)

Source: OECD Communications Outlook (2009)

223. In order to reflect the importance of pre-paid plans in New Zealand, the Commission now separately reports the results of OECD benchmarking for pre-paid and post-paid plans.
224. In the Draft Report the Commission reported the results of the February 2009 OECD benchmarking, noting that Vodafone's Base plans were typically ranked in the top half of the OECD countries. However, in respect of pre-paid benchmarking, the Commission reported that New Zealand ranked poorly, being amongst the five most expensive countries in the OECD.¹⁵⁴ Specifically, based on the February 2009 benchmarking, New Zealand's pre-paid ranking was 27 out of 30 for the low and high user baskets, and 26 out of 30 for the medium user basket.¹⁵⁵
225. The results of the August 2009 benchmarking, as reported by the Commission in its latest telecommunications sector monitoring report¹⁵⁶, are summarised in Table 5 and Table 6 below.

¹⁵⁴ See paragraphs 215 to 220 of the MTAS Draft Report.

¹⁵⁵ See Table 17 of the Draft Report.

¹⁵⁶ Commerce Commission, *Telecommunications market monitoring report: Six months to June 2009*, 12 November 2009.

Table 5: OECD Rankings, August 2009 (Pre-paid)¹⁵⁷

| | Cheapest NZ Plan | Annual price of plan (\$NZ) | Ranking (out of 30) | % of OECD average |
|--------------------|-------------------------|------------------------------------|----------------------------|--------------------------|
| Low user | 2degrees | \$213.93 | 12 | 79% |
| Medium user | 2degrees | \$367.23 | 10 | 68% |
| High user | 2degrees | \$805.19 | 16 | 80% |

Source: Commerce Commission (2009)¹⁵⁸

Table 6: OECD Rankings, August 2009 (Post-paid)

| | Cheapest NZ Plan | Annual price of plan (\$NZ) | Ranking (out of 30) | % of OECD average |
|--------------------|-------------------------|------------------------------------|----------------------------|--------------------------|
| Low user | Vodafone Easy 20 | \$188.52 | 9 | 71% |
| Medium user | Vodafone Easy 60 | \$329.17 | 11 | 80% |
| High user | Vodafone Easy 150 | \$553.71 | 12 | 90% |

Source: Commerce Commission (2009)¹⁵⁹

226. Following the launch of 2degrees, for the first time in the Commission's analysis, New Zealand is ranked below the OECD average for both pre-paid and post-paid plans. However, the Commission notes that there is typically a significant increase in price from the cheapest New Zealand plan to the second cheapest New Zealand plan for each usage basket. For example, if 2degrees is omitted from the pre-paid benchmarking and the Vodafone Easy plans are omitted from the post-paid benchmarking, New Zealand's performance in the benchmarking diminishes dramatically.¹⁶⁰
227. Significantly, when 2degrees is excluded from the August 2009 pre-paid benchmarking, New Zealand's ranking drops to 24 out of 30 for the low user basket, 27 out of 30 for the medium user basket and 28 out of 30 for the high user basket. This indicates that in the absence of the 2degrees pre-paid offering, New Zealand has some of the highest pre-paid prices in the OECD.
228. In addition, the Commission notes that only a very small proportion of New Zealand's mobile subscriber base is served by those plans which perform well in the OECD benchmarking (i.e., the pre-paid offering from 2degrees and the Vodafone Easy plans).¹⁶¹
229. The Commission also notes that 2degrees' pre-paid plan offers a significantly lower off-net calling rate than the pre-paid plans of Vodafone and Telecom. Specifically, 2degrees' headline off-net rate is 44cpm, while the headline off-net rate for Vodafone and Telecom pre-paid subscribers is 89cpm.¹⁶² As noted in paragraph 288 below, the Commission

¹⁵⁷ In reporting the results of the OECD benchmarking, the Commission has supplemented the Teligen data by adding the 2degrees pre-paid plan.

¹⁵⁸ Based on analysis of data from Teligen T-Basket, August 2009.

¹⁵⁹ Based on analysis of data from Teligen T-Basket, August 2009.

¹⁶⁰ See Figure 3 to Figure 8 of the Commission's Telecommunications market monitoring report for the six months to June 2009.

¹⁶¹ See paragraphs 189 and 221 above.

¹⁶² Although Telecom's prepaid plan has the same headline 89cpm calling rate as Vodafone's, Telecom prepaid top-ups of \$20 on its XT network attract a bonus credit of 25 per cent (making prices effectively 20 per cent cheaper) and

considers that in lowering its off-net price below that of Vodafone and Telecom, 2degrees is likely to stimulate greater volumes of outgoing off-net traffic, resulting in net termination payments to the other operators. As discussed in paragraphs 272 to 289, such a traffic imbalance, when combined with significantly above-cost MTRs, is likely to have an adverse impact on the ability of a small operator such as 2degrees to continue to compete effectively in the market.

230. Although there have been significant decreases in price, corresponding increases in usage, and New Zealand now performs relatively well in the OECD benchmarking, the Commission considers that this does not imply that the competition issues identified in earlier reports have been resolved. Rather, the headline off-net pricing offered by 2degrees, relative to that offered by Vodafone and Telecom, indicates that significant traffic imbalances in favour of the established operators could be expected. Where the MTRs that apply to this traffic are significantly above cost, such traffic imbalances will lead to a substantial transfer of resources from the small entrant to the larger mobile networks, thereby limiting the ability of 2degrees to compete in the mobile market.

Existing competition - Pricing and usage of SMS services

231. Throughout this MTAS Investigation, 2degrees has repeatedly noted that SMS is a key platform for market entry. For example, in its submission on the Draft Report, 2degrees stated:¹⁶³

"The Draft Report does not, in our view, place sufficient weight on the role of SMS as an essential mechanism for market entry. It is not possible to be a full-service provider from day one. Rather, entry begins at the "value-based" end of the market, with the lowest cost service being SMS."

232. Similarly, in its cross-submission on the Draft Report, 2degrees stated:¹⁶⁴

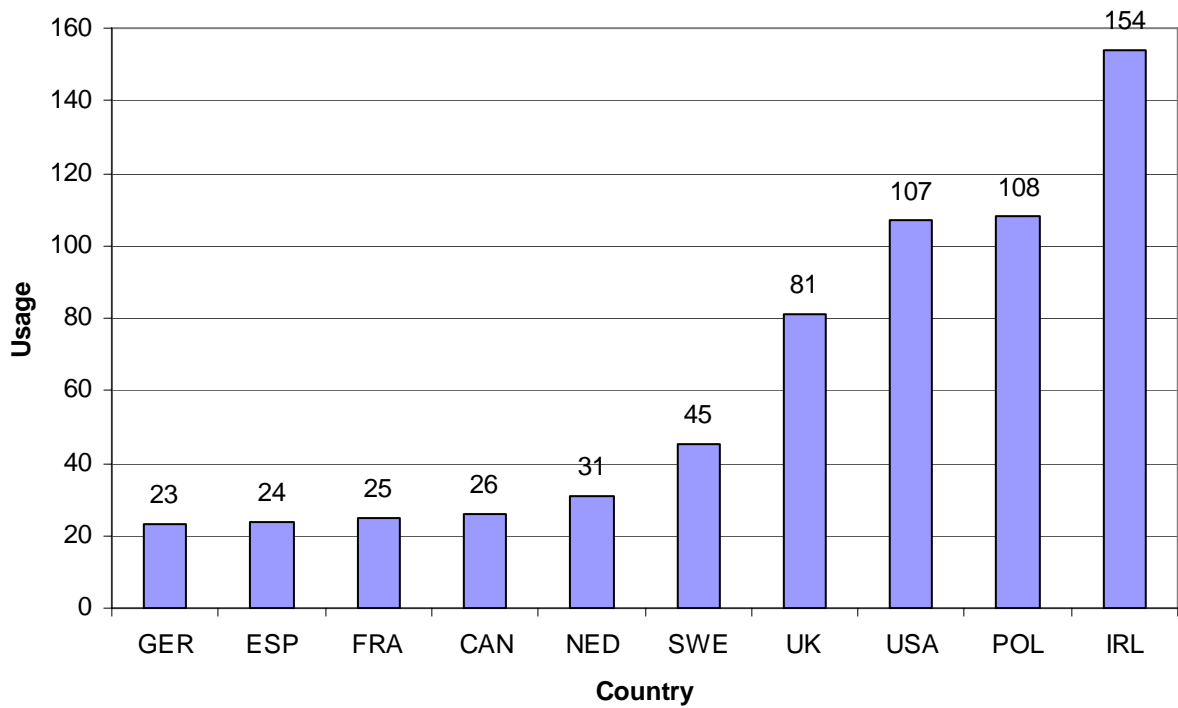
"A feature of the New Zealand market is the relatively high incidence of SMS relative to voice. Putting aside the fact that this is arguably due to the extremely high cost of voice, SMS has become an accepted and common form of communication. Notably at the more value-based end of the market."

233. Vodafone, however, has submitted that there is limited justification for regulating SMS as this service already has very low prices and high usage in New Zealand. In order to support these assertions, Vodafone presented information on average revenue per SMS and SMS usage comparing Vodafone New Zealand to other Vodafone operating companies.
234. With a view to comparing SMS usage in New Zealand with other jurisdictions, the Commission has supplemented information contained in the 2008 Ofcom report on the international communications market with data received as part of the MTAS data questionnaire.
235. Figure 10 displays SMS usage per month in 10 countries. In 2007, SMS usage in New Zealand was approximately [] CRI messages per capita per month, indicating that New Zealand has higher monthly SMS usage per capita than each of the countries included in the Ofcom report.

Telecom's plan bills per second after the first minute rather than rounding up to the nearest minute as is the case with Vodafone and 2degrees prepaid plans.

¹⁶³ 2degrees, *Submission on the MTAS Draft Report*, 28 July 2009, p 8, paragraph 1.19.

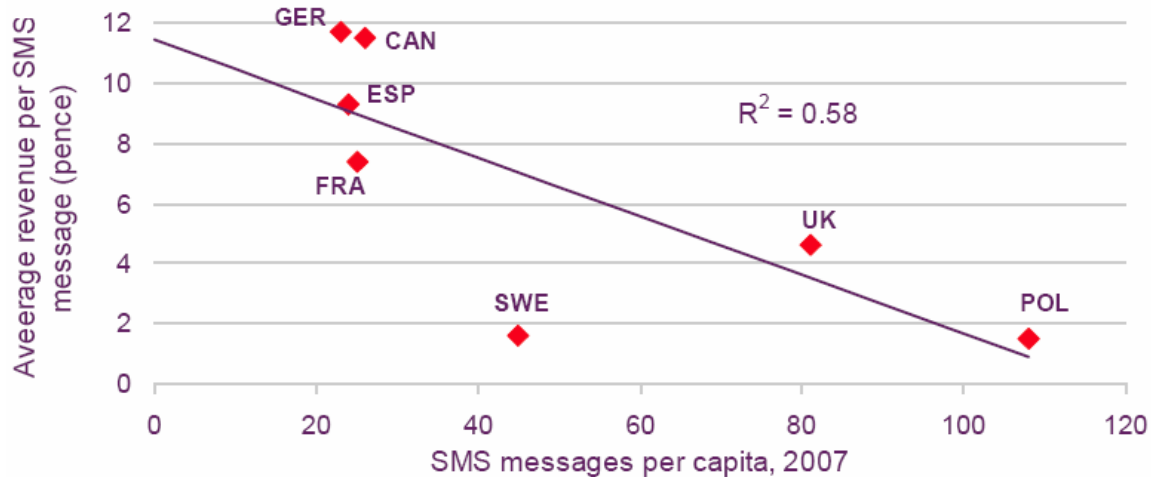
¹⁶⁴ 2degrees, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 29, paragraph 6.1.

Figure 10: SMS usage per capita per month (2007)

Source: Ofcom (2008)¹⁶⁵

236. Ofcom has also published data on the relationship between pricing and usage of SMS services for a number of countries. This is depicted in Figure 11 below.

¹⁶⁵ Ofcom, *The International Communications Market 2008*, 20 November 2008, Figure 5.16, p 204.

Figure 11: SMS messages per mobile connection and average revenue per SMS, 2007

Source: Ofcom (2008)¹⁶⁶

237. As noted above, in 2007, SMS usage in New Zealand was approximately [] CRI messages per capita per month. In addition, average revenue per SMS was approximately [] CRI pence¹⁶⁷. Accordingly, when compared to the countries included in Figure 11 above, New Zealand has the lowest price and highest usage. This appears to support Vodafone's statements that, in respect of SMS, prices are low and usage is high in New Zealand relative to other countries.
238. Despite New Zealand exhibiting relatively low retail pricing and high usage for SMS, the Commission has a number of concerns regarding the competitive conditions in the current retail market for SMS services.
239. In particular, the Commission notes that the prevailing SMS termination rate of 9.5 cents is well in excess of the Commission's cost-based estimate of 0.95 cents. Furthermore, as noted in Table 7 below, off-net retail SMS prices remain well in excess of on-net prices.
240. In the Draft Report the Commission stated that:¹⁶⁸
- '...above-cost pricing at the wholesale level has flowed through to the downstream retail market, particularly in relation to the average prices for off-net SMS messages, which for both Telecom and Vodafone are significantly in excess of the average prices for on-net SMSs...
- The Commission is concerned that the price difference between on-net and off-net prices, and the above cost nature of SMS pricing, particularly for off-net SMSs, is likely to create a significant barrier to market entry and competition.'
241. The Commission is still concerned by the combination of above cost SMS termination rates and the on-net/off-net pricing differentials observed in the retail market. On-net and off-net average revenue per SMS figures for 2008 are presented in Table 7 below.

¹⁶⁶ Ofcom, *The International Communications Market 2008*, 20 November 2008, Figure 5.17, p 205.

¹⁶⁷ Calculated by converting the NZ industry average revenue per SMS for 2007 of approximately [] CRI to pence using an exchange rate of 0.3876 (as at 31 December 2007). Source: www.oanda.com.

¹⁶⁸ Commerce Commission, *Draft Report on whether the MTAS should become designated or specified services*, 30 June 2009, p 74-75, paragraphs 230 and 233.

Table 7: On-net and off-net average revenue per SMS in New Zealand (2008)

| | Vodafone | Telecom | Industry |
|-----------------------------|----------|---------|----------|
| On-net | [] VRI | [] TRI | [] CRI |
| Off-net | [] VRI | [] TRI | [] CRI |
| Average | [] VRI | [] TRI | [] CRI |
| On-net/off-net differential | [] VRI | [] TRI | [] CRI |

Source: Telecom, Vodafone (2009).

242. These on-net/off-net differentials appear to have caused the vast majority of SMS traffic in New Zealand to remain on-net. Based on information received in response to the MTAS data questionnaire, the Commission estimates that, in 2008, more than 90% of SMS traffic in New Zealand was carried on-net.¹⁶⁹
243. The lack of cross-network SMS traffic suggests that the retail market outcomes in respect of SMS may not be as competitive as Vodafone suggests. As noted in paragraphs 272 to 289 below, the Commission's view remains that the combination of significantly above-cost termination rates and on-net discounting is likely to act as a barrier to entry and expansion in the mobile market. As with voice termination, the Commission considers that in the presence of above-cost SMS termination rates and on-net discounting, a small entrant may need to offer off-net services at prices that are comparable to on-net prices charged by the established operators. The Commission considers that this has the potential to generate traffic imbalances in favour of the established operators.
244. This is reflected in submissions from 2degrees. For example, in its cross-submission on the Draft Report, 2degrees argued that the prevalence of on-net SMS bundles in New Zealand has had a foreclosure effect on the market. 2degrees stated that:¹⁷⁰
- “...for many target customers SMS is a “must have” and we cannot access those potential customers as they use SMS bundles and are tied into closed-net calling circles.”
245. In its written opening statement provided prior to the MTAS Conference, Vodafone argued that, since 2003, traffic flows between Vodafone and Telecom have been largely invariant to different on-net and off-net pricing offers. In addition, Vodafone stated that its rivals have provided no data to support their conceptual arguments to show what might happen if SMS termination rates remain at current levels.¹⁷¹
246. Although the Commission notes the information presented by Vodafone regarding SMS traffic flows, it considers that traffic between two established operators, with roughly equal market shares, is unlikely to be representative of the likely traffic flows between established operators and a small new entrant. In particular, as Vodafone and Telecom each already had a substantial subscriber base prior to the introduction of the various on-net offers referred to by Vodafone¹⁷², the impact on traffic flows is unlikely to be as pronounced as it would be in the case of a new entrant.

¹⁶⁹ See Table 8 below.

¹⁷⁰ 2degrees, *Cross-submission on the MTAS Draft Report*, p 33, paragraph 6.26.

¹⁷¹ Vodafone, *MTAS Written Opening Statement*, 31 August 2009, p 27-29.

¹⁷² Such as free text weekends, TXT2000, BestMates and Family.

247. Traffic data supplied to the Commission following the launch of 2degrees indicates that the SMS traffic from 2degrees to Vodafone as a proportion of SMS traffic from Vodafone to 2degrees across August and September 2009 was [] RI. This supports the view that, in order to compete in the SMS market, 2degrees is likely to face a traffic imbalance in favour of an established operator engaging in significant on-net price discounting, for example, Vodafone with plans such as BestMates and TXT2000.¹⁷³
248. Accordingly, the Commission considers that the significantly above-cost nature of SMS termination is likely to act as a barrier to efficient entry and expansion in the mobile market.

Existing competition - On-net/off-net volumes and pricing differentials

249. The Commission stated in the Draft Report that above-cost MTRs are likely to limit the extent to which an entrant will be able to compete with existing retail on-net prices in New Zealand. While the Commission acknowledged that plans offering discounted on-net prices are likely to offer significant benefits to end-users who subscribe to the same network, its preliminary view was that on-net discounting may also form a significant barrier to entry by locking subscribers into a particular network as they, and other people in their calling circles, benefit from low on-net calling rates.¹⁷⁴
250. In the Draft Report the Commission noted that retail prices for on-net services have generally been significantly lower than for off-net services between networks. The Commission also noted that, in 2008, on-net traffic accounted for more than 80% of all MTM voice traffic, and a higher proportion for SMS. The volumes of on-net and off-net MTM traffic for 2008, as reported by Vodafone and Telecom in response to the Commission's data questionnaire, are summarised in Table 8 below.¹⁷⁵

Table 8: MTM on-net and off-net traffic volumes (2008)

| | Vodafone | Telecom | Total |
|-------------------------------------|----------|---------|---------|
| <u>Voice</u> | | | |
| Outgoing MTM calls on-net national | [] VRI | [] TRI | [] CRI |
| Outgoing MTM calls off-net national | [] VRI | [] TRI | [] CRI |
| Total MTM voice traffic national | [] VRI | [] TRI | [] CRI |
| % voice traffic on-net | [] VRI | [] TRI | [] CRI |
| <u>SMS</u> | | | |
| SMS messages sent on-net national | [] VRI | [] TRI | [] CRI |
| SMS messages sent off-net national | [] VRI | [] TRI | [] CRI |
| Total SMS traffic national | [] VRI | [] TRI | [] CRI |
| % SMS traffic on-net | [] VRI | [] TRI | [] CRI |

Source: Telecom, Vodafone (2009).

¹⁷³ Further discussion regarding the possible levels of SMS traffic imbalance between 2degrees as the small entrant, and the larger mobile operators, is included in paragraphs 812 to 813 below.

¹⁷⁴ See paragraph 286 of the Draft Report.

¹⁷⁵ The voice usage reported is based on actual (rather than billed) minutes.

251. Telecom submitted that on-net pricing is reflective of marketing strategies adopted by various operators and bears no relationship to MTRs. Telecom noted that on-net price discounting exists in 27 out of the 30 OECD mobile markets.¹⁷⁶
252. The Commission has compared the prevalence of on-net calling in New Zealand to a number of European countries using publicly available data. The shares of on-net and off-net mobile minutes (as a percentage of all mobile-originated minutes) for each of these countries is outlined in Table 9 below.

Table 9: Proportion of on-net and off-net mobile calls (2008)¹⁷⁷

| | UK | Spain | France | Sweden | NZ |
|---------------|--------|--------|--------|--------|---------|
| On-net calls | 34.45% | 55.99% | 52.25% | 48.48% | [] CRI |
| Off-net calls | 27.12% | 27.63% | 26.66% | 24.90% | [] CRI |
| Ratio | 1.27 | 2.03 | 1.96 | 1.95 | [] CRI |

Source: Ofcom (2008)¹⁷⁸, CMT (2008)¹⁷⁹, Arcep (2009)¹⁸⁰, PTS (2009)¹⁸¹, Telecom and Vodafone (2009)

253. This indicates that the ratio of on-net to off-net mobile traffic in New Zealand is *significantly* higher than that observed in these European jurisdictions. Accordingly, the Commission considers that any barrier to efficient entry and expansion that is created by on-net discounting is likely to be of particular concern in the context of the New Zealand market.
254. The high level of on-net traffic in New Zealand is likely to be driven by the introduction of pricing plans that offer cheap on-net calling and texting, such as Vodafone BestMates, Vodafone Family, Vodafone TXT2000 and Telecom My Favourites. The Commission notes that the introduction of these plans appears to have led to a dramatic increase in the level of on-net traffic over the period from 2006-2008, particularly with regard to Vodafone's network.
255. With the launch of its XT network, Telecom has moved away from on-net discounting on that network, with headline pricing on both pre-paid and post-paid XT plans applying to calls to any network. However, the Commission notes that lower-priced on-net calling is still offered to XT customers through the MyFavourites add-on. Furthermore, Telecom customers on its legacy CDMA network still have access to plans which encourage on-net calling, through the inclusion of a significantly greater number of on-net minutes than off-net minutes.¹⁸²

¹⁷⁶ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 75.

¹⁷⁷ The figures in Table 9 are based on on-net and off-net MTM minutes as a proportion of total mobile-originated minutes (including, for example, mobile-to-fixed calls).

¹⁷⁸ Ofcom, *The Communications Market 2008*, p 339, figure 5.71.

¹⁷⁹ CMT, *2008 Annual Report – Chapter 3: Industry Statistics*, p 277.

¹⁸⁰ Arcep, *The electronic communications services market in France in the 4th quarter 2008*, May 2009, p 25.

¹⁸¹ PTS, *The Swedish Telecommunications Market 2008*, 9 June 2009, p 79, table 20.

¹⁸² For example, 'Freetime 125' includes 100 off-peak minutes to NZ landlines and Telecom mobiles, and 25 off-peak minutes to other NZ mobiles. See <http://www.telecom.co.nz/mobile/yourmobile/cdma/changeplan>

256. 2degrees also offers on-net discounting in the form of a reduced voice rate of 22cpm to 2degrees mobiles and landlines in 22 countries as part of its ‘Magic Top Up’ scheme. This on-net rate is half of the standard headline any-network calling price of 44cpm.
257. Table 10 below displays the level of on-net discounting for voice and SMS in 2008 by Vodafone and Telecom. The on-net discount is calculated by comparing the on-net and off-net average revenue per minute (ARPM) for voice, and the on-net and off-net average revenue per SMS (ARPSMS) for SMS.¹⁸³

Table 10: Retail on-net discounting in New Zealand (2008)

| | Vodafone | Telecom |
|-----------------|----------|---------|
| Voice | | |
| On-net ARPM | [] VRI | [] TRI |
| Off-net ARPM | [] VRI | [] TRI |
| On-net Discount | [] VRI | [] TRI |
| | | |
| SMS | | |
| On-net ARPSMS | [] VRI | [] TRI |
| Off-net ARPSMS | [] VRI | [] TRI |
| On-net Discount | [] VRI | [] TRI |

Source: Telecom, Vodafone (2009)

258. This indicates that the average on-net discount for voice on Vodafone’s network in 2008 was approximately [] CRI, while the corresponding discount for Telecom is [] CRI. The Commission notes, however, that these figures are unlikely to capture the effect of Telecom MyFavourites, which allows unlimited calling between certain Telecom (mobile and landline) numbers, as this plan was introduced in mid-late 2008.
259. In an article provided to the Commission as part of Vodafone’s submission on the Issues Paper, Dr. Jonathan Sandbach presented a simple theoretical model which predicts the on-net pricing discount as a product of two components:
- the ratio between the marginal costs of on-net and off-net calls (the latter including the other network’s termination rate); and
 - a factor that is only important if there are call externalities.
260. Assuming that the marginal cost of on-net call termination is approximately one third of the termination rate, Sandbach noted that:¹⁸⁴

“Ignoring call externality effects, we would...expect to see on-net discounts of around 50%, when averaged across all tariffs offered by an operator. Comparing this value to Chart 4 [graphs showing the level of on-net discounting in each OECD country], we see that very few MNOs have effective on-net discounts as high as this.”

¹⁸³ The ARPM figures are based on actual minutes and include an apportionment of subscription revenue as referred to in paragraphs 591 to 594 below.

¹⁸⁴ Dr. Jonathan Sandbach, *Theory and practise of on-net pricing*, Vodafone Policy Paper Series: Number 8, April 2008, p 41.

261. The Commission notes that Table 10 above indicates that the level of on-net discounting in New Zealand is generally greater than the 50% referred to by Dr. Sandbach, suggesting that the level of on-net discounting in New Zealand may be relatively high compared to other OECD countries.¹⁸⁵

262. Vodafone and Covec have argued that low on-net pricing is unlikely to foreclose entry into the New Zealand mobile market. According to Vodafone:¹⁸⁶

‘In New Zealand, the extent of on-net price discounting for voice is mainly limited to closed user group offerings such as BestMate and Family that are targeted to groups of 2 or 4 consumers. Importantly, a large proportion of our customers do not subscribe to an on-net pricing bundle. Of our subscribers:

- less than [] **VNZCOI** pre-pay customers subscribe to BestMate;
- there are approximately only [] **VNZCOI** “Family” hubs; and
- over [] **VNZCOI** active pre-pay customers do not subscribe to an on-net bundling offer.’

263. Covec submitted that blanket discounted on-net voice prices are not offered by Vodafone.¹⁸⁷ According to Covec, low on-net prices are driven by closed user groups, such as Vodafone’s BestMates and Family plans, each of which typically involves a small group of subscribers:¹⁸⁸

‘Low prices are only available for calls to small groups. The task would be very much tougher for a new entrant if these voice plans were available to anyone on-net. Under the current structure of prices, it is not necessary for an entrant to offer low any-net pricing to compete with the existing on-net pricing.’

264. Vodafone has indicated that a relatively small proportion of its pre-pay customers subscribe to the BestMates plan. The Commission notes, however, that Vodafone’s on-net offers extend beyond BestMates for pre-paid customers. For example, a significant number of Vodafone’s contract plans include a free BestMate within the monthly subscription price.¹⁸⁹ Vodafone has informed the Commission that the total number of pre-pay and contract BestMates subscribers as of June 2009 was [] **VNZRI**.¹⁹⁰

265. Following the MTAS Conference, Vodafone also provided data to show that:

- of all its BestMate customers, [] **VNZRI** are exclusively reciprocated so that both parties pay to be each other’s BestMate, and do not pay to be any other person’s BestMate;
- a further [] **VNZRI** are exclusive one-way BestMates, where one party pays, and the receiving party does not pay to be any other person’s BestMate;
- overall, [] **VNZRI** of BestMate customers are in calling circles sized two; and

¹⁸⁵ Although New Zealand is already included in Chart 4 of the Sandbach paper, the Commission considers that the on-net discounts referred to in Table 10 above are likely to provide a more accurate reflection of the level of on-net discounting in this country. In particular, this is because Table 10 provides industry average on-net discounts, while the Sandbach paper relies on data collected by Teligen regarding a limited number of certain retail plans.

¹⁸⁶ Vodafone, *Written Opening Statement*, 31 August 2009, page 19.

¹⁸⁷ Covec, *Comments on the MTAS Conference ‘Whiteboard’ Examples*, 9 October 2009, paragraph 16.

¹⁸⁸ *ibid*, paragraph 17.

¹⁸⁹ According to Vodafone’s website, of the 16 on-account plans offered by Vodafone, 12 include a free BestMate within the subscription price.

¹⁹⁰ Letter from Vodafone (Richard York) to the Commission (Shane Kinley), *RE: request for additional information after the MTAS Conference*, 1 October 2009.

- a further [] **VNZRI** pay for more than one (two or three) BestMates and are therefore part of calling circles sized three or four.¹⁹¹
266. Accordingly, the Commission acknowledges that, when viewed in isolation, Vodafone BestMates generally involves relatively small calling circles. However, the data presented in paragraph 265 above ignores linkages with the Vodafone Family plan and other broader on-net offerings.
267. Contrary to Covec's assertion, a number of Vodafone's contract plans include a monthly allocation of on-net voice minutes (as well as on-net texts) that can be used to call any Vodafone mobile subscriber. For example, Vodafone's Mega 20 plan includes 20 any-network minutes per month, and 200 on-net minutes per month. Vodafone's Talker plans include unlimited free on-net minutes over weekends.¹⁹²
268. Furthermore, Vodafone's pre-pay plans include other forms of on-net discounting, in addition to BestMates. Under the Free Weekends offer, pre-pay subscribers who spend \$5 during a Monday-Friday period receive unlimited free on-net texts over one weekend, while those who spend \$10 receive unlimited free on-net texts and calls over a weekend. Vodafone pre-pay customers can also make on-net calls of up to 2 hours for \$2 during off-peak periods. In addition, Vodafone's popular SMS plan, TXT2000, offers 2000 on-net text messages for \$10 per month.
269. The Commission also notes that Vodafone offers a range of business-specific on-net plans, including its talkZone plans.
270. Accordingly, many on-net pricing offers that currently exist in the marketplace are not limited to traffic between certain subscribers who form part of a 'small' calling circle. The Commission therefore considers that the submissions from Vodafone and Covec discussed above understate the importance and prevalence of on-net pricing in New Zealand.
271. The Commission considers that the on-net/off-net differentials referred to in Table 10 above are likely to have strengthened the incentives for end-users to congregate on a particular network, potentially creating a significant barrier to entry in the New Zealand mobile market. This is addressed further below.

Existing competition - Third entrant and the impact of on-net discounting and above-cost MTRs

272. 2degrees has now entered the New Zealand mobile market, and there are now three mobile network operators in this country. As the Commission noted in the Draft Report,¹⁹³ the entry of 2degrees as a third mobile network is a significant development in the retail mobile market in New Zealand, with the previous instance of network-based entry occurring with BellSouth's (now Vodafone) entry in 1993.
273. However, the Commission's view remains that the ability of 2degrees to compete and expand is likely to be limited as long as MTRs remain significantly above cost.

¹⁹¹ Letter from Vodafone (Richard York) to the Commission (Shane Kinley), *RE: request for additional information after the MTAS Conference*, 1 October 2009, p 5.

¹⁹² Vodafone's Talker plans also include a free BestMate.

¹⁹³ Commerce Commission, *Draft Report on whether the MTAS should become designated or specified services*, 30 June 2009, p 87, paragraph 301.

274. In their submissions, Vodafone and Telecom have argued that changes in MTRs will have little impact on competition and on retail outcomes for consumers. These submissions appear to be based on the view that traffic flows between the mobile operators are likely to be roughly in balance.¹⁹⁴ However, in the Draft Report the Commission raised concerns about the potential effect of heavy on-net discounting combined with high MTRs to impair or prevent efficient expansion by a small entrant such as 2degrees.
275. Similar concerns have also been raised in submissions made by and on behalf of 2degrees.¹⁹⁵ These submissions suggest that low on-net retail pricing may lead to a traffic imbalance in favour of a large mobile operator. In the presence of on-net discounting, customers will tend to place greater value on subscribing to a larger network, as they are able to take advantage of the lower on-net price for calls to a large subscriber base.
276. Covec's cross-submission on the Draft Report argued that on-net discounting intensifies competition between mobile networks by creating network effects. While this may be true in respect of competition between networks of a similar size, such pricing can also reduce competition by limiting or deterring entry or expansion by smaller networks. In its earlier submission on the Draft Report, Covec noted that on-net discounts will make subscription to a larger network more valuable for consumers. This is likely to create a competitive advantage for larger networks.
277. This has been recognised by a number of submissions on behalf of 2degrees, as well as by other regulators such as the ERG. In addition, the competitive implications of on-net discounting have been increasingly recognised in the literature. For example, Armstrong and Wright note that:¹⁹⁶
- ‘By setting above-cost MTM termination charges, incumbent networks can induce network effects which make entry less attractive for the newcomer. With high MTM termination charges, off-net calls will be more expensive, which particularly hurts a small network since the bulk of its subscribers' calls will be off-net. An additional effect of high off-net call prices will be to reduce the number of calls received by a small network's subscribers, thereby further reducing its ability to compete when call externalities are important.’
278. Covec's submission also stated that if all mobile customers are identical, then traffic flows between mobile networks will be balanced regardless of market share. However, this view seems to overlook the implications of different prices for calls between networks. As highlighted in submissions by Concept and Dr Haucap on behalf of 2degrees, in the presence of on-net discounting by large operators, a small mobile entrant is likely to have to lower its off-net prices in order to attract subscribers.¹⁹⁷ If the entrant's off-net price is lower than the incumbent's off-net price, this is likely to create a traffic flow in favour of the latter, as the entrant's subscribers make relatively more calls or send more messages to the incumbent's subscribers. If MTRs are above-cost, the entrant operator will end up transferring resources to the established operators.

¹⁹⁴ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 354 to 366.

¹⁹⁵ For example; 2degrees, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 5.25-5.27.

¹⁹⁶ Armstrong, M., and J. Wright, “Mobile Call Termination”, in *The Economic Journal*, June 2009, pages 288 and 289.

¹⁹⁷ Concept Economics, *MTAS: Cross-submission*, 18 August 2009; Haucap submission, *Short report on the assessment of the expected costs and benefits of lower mobile termination rates in New Zealand*, 18 August 2009.

279. At the MTAS Conference, Covoc acknowledged, at least in respect of SMS, that the probability of receiving an SMS in response to sending one will be influenced by prices.¹⁹⁸ Vodafone also referred to the high probability of symmetric SMS flows in its submission on the Draft Report,¹⁹⁹ although again this appears to relate to its experience with Telecom, and may not be as relevant where a small entrant is competing in the manner described above.
280. In relation to SMS, the Commission also notes Vodafone's earlier submissions that SMS traffic will be largely in balance, and that as a result, changes in SMS termination rates will have little impact on any operator's cashflows.²⁰⁰ If this were the case, it might be expected that the pass-through rate for SMS (i.e. the reduction in retail SMS prices for a given reduction in SMS termination rates) would be close to zero, as there would be nothing to pass through to end-users. However, in attempting to demonstrate the consumer benefits from its revised SMS undertaking of 2 October 2009 relative to regulation, Vodafone subsequently used a pass-through rate of between 50% and 124% for SMS.²⁰¹
281. Both Concept and Dr Haucap have provided examples demonstrating how on-net discounting at the retail level combined with high wholesale MTRs can constrain the ability of a small entrant to expand and compete with larger established mobile operators.²⁰² Similarly, WIK has noted that:²⁰³

‘It is a well established result in the regulatory economic literature that the combination of high MTRs and on-net/off-net price differentials can generate strategic barriers to entry.’

282. The European Commission has raised similar concerns over the potential for high MTRs and asymmetric traffic flows to disadvantage small entrants.²⁰⁴

‘Where regulated off-net termination rates are set above an efficient level of cost, this can have negative competitive implications in the presence of asymmetric traffic flows between operators, in particular for the ability of smaller operators to match the on-net offers of their larger competitors.’

283. In the Draft Report, the Commission also referred to comments made by the ERG on this type of situation. According to the ERG (emphasis added):²⁰⁵

‘In some European markets, larger operators do often take advantage of the difference between internal and external cost signals (respectively for on-net and off-net calls) to charge very different prices for on-net and off-net calls, by offering:

- a lower price towards any number of their own network

¹⁹⁸ MTAS Conference Transcript, 3 September 2009, page 209.

¹⁹⁹ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 377.

²⁰⁰ *ibid*, paragraph 376.

²⁰¹ According to Vodafone's analysis, the large benefits from the earlier reduction in SMS termination rates in its revised undertaking of 2 October 2009 (where the SMS termination rate is reduced from 9.5cptxt to 1.2cptxt in April 2010) outweigh the subsequent smaller benefits from regulation. Vodafone submission, 16 October 2009, paragraph 26. See also Table 1, and Annex B for results and details of Vodafone's SMS welfare analysis.

²⁰² Concept Economics, *MTAS: Cross-submission*, 18 August 2009; Haucap submission, *Short report on the assessment of the expected costs and benefits of lower mobile termination rates in New Zealand*, 18 August 2009.

²⁰³ WIK, *Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009*, February 2010, p 38.

²⁰⁴ European Commission Staff Working Document, 7 May 2009, page 13.

²⁰⁵ ERG(07)83, pages 97-98.

- a lower price towards a few numbers of their own network
- unlimited calls toward a few numbers of their own network

These offers can induce a market situation where small operators have difficulties in attracting customers towards their networks, in particular in saturated markets (which is currently the case in European markets).

Such retail pricing structures alone are not necessarily a competition problem, and its prevalence and nature varies between member states. **This potential competition issue is, however, compounded when MTRs (charged by large networks) are significantly above costs really due to terminate calls.** The extreme situation can appear when on-net prices are lower than MTR tariffs. As discussed, these considerations highlight the importance of setting MTRs at cost. In the interim period, it is recognised that **the small operators, among other strategies, can try to overcome the network effect by decreasing its off-net price – so that customers can compare it with the on-net price of the larger network – it then faces the problem that it has to pay to terminate such a call a high wholesale price -the MTR-, whereas it only receives a quite low retail price.** If the MTR is above the retail price (equal to the on-net price of the larger network), then the smaller operator may in the limit be forced to incur a loss on its off-net calls, if it wants to be competitive.’

284. In their submissions on behalf of 2degrees, Concept Economics and Dr Haucap provided illustrative examples of how a small mobile entrant may struggle to compete against large operators where there is heavy on-net discounting at the retail level and high wholesale MTRs. According to these submissions, a small entrant will earn lower margins on customers than the larger networks, with a net traffic outflow likely from the small entrant to the large networks.
285. Telecom, on the other hand, provided the example of Vivatel as a mobile entrant competing successfully in the face of high MTRs.²⁰⁶ The Commission notes, however, that Vivatel was actually launched by the incumbent fixed-line operator in Bulgaria, with a large fixed-line customer base in excess of 2 million customers.²⁰⁷ The Commission does not see the relevance of such an example to the entry conditions facing a small mobile-only network operator such as 2degrees.
286. While the Commission has a number of reservations about some of the assumptions behind the examples provided by Concept and Dr Haucap, the Commission nevertheless considers that the examples provided usefully highlight the competition concerns posed by the combination of on-net discounting and above-cost MTRs.
287. In terms of the assumptions used in the examples provided by Concept and Dr Haucap, the Commission notes the following:
- in both examples, the market shares of both the entrant and the incumbent appear to be held fixed. This seems to reflect the presumption in the Concept and Haucap analyses that the entrant aims only to replicate the existing retail revenues earned by the incumbent. However, to the extent that the entrant gains customers from the incumbent, the differential in margins is likely to move in the entrant’s favour;²⁰⁸

²⁰⁶ Telecom, *Submission on MTAS Draft Report*, 28 July 2009, paragraphs 71-72.

²⁰⁷ http://www.vivacom.bg/en/residential/about_us/company_information/

²⁰⁸ This can be seen from the example provided by Dr Haucap, where the entrant captures not only the new subscriber, but also one of the incumbent’s existing subscribers.

- in the Concept example, Concept make some assumptions around the relative importance of off-net traffic. Concept assume that 15% of Vodafone's SMS traffic is off-net, while 88% of 2degrees' SMS traffic is off-net. As a result, the volume of SMS traffic from 2degrees to Vodafone as a proportion of the volume of SMS from Vodafone to 2degrees is 586%. This level of imbalance seems to be excessive and unlikely, especially in light of actual traffic flow data between 2degrees and Vodafone;²⁰⁹
- for MTM traffic, the Concept assumptions result in an even higher imbalance, of 770%. Concept also assume that while Vodafone's Best Mate traffic is entirely on-net, 2degrees has to offer an equivalent plan with a high proportion (88%) of off-net traffic. This results in a relatively high volume of off-net MTM traffic for 2degrees, which in turn influences the margins (retail prices less wholesale interconnection payments) available to 2degrees. The resulting imbalance of off-net MTM traffic between the 2degrees and Vodafone networks in the Concept example is 770%. As with the case of SMS, such an imbalance seems excessive in light of actual traffic data between 2degrees and Vodafone.²¹⁰ If the proportion of off-net traffic for the entrant's plan is lower, the margin available to 2degrees increases;
- in subsequent analysis conducted for 2degrees, the authors of the Concept submission have moderated the SMS imbalance, from 586% to 122%.²¹¹ However, the MTM imbalance is unchanged;
- finally, the Concept analysis is based on a single Vodafone retail plan (Vodafone's Starter 2000 plan). Concept justifies this on the basis that such a plan is attractive to the price-sensitive, low demand customers that are likely to be targeted by a new entrant such as 2degrees. However, the Commission notes that there is a wide variety of retail plans offered by both Vodafone and Telecom, and that 2degrees is likely to compete against both the established mobile operators. Therefore, a focus on a single retail plan of one of the existing mobile operators is likely to be unduly narrow. As discussed later, the Commission has instead used aggregate retail revenue and volume data to assist in the Commission's analysis of wholesale MTRs.

288. The reservations identified in paragraph 287 above relate to a number of the assumptions used by Dr Haucap and Concept. However, the Commission considers that the examples illustrate the potential difficulties generally faced by a small entrant in competing in the above circumstances, especially where the wholesale MTR is such that the entrant cannot compete with the on-net retail prices of the incumbents. In order to be able to offer a competitive level of on-net coverage, a small entrant may have to offer off-net services at on-net prices, or at least lower its off-net price below the off-net prices of the incumbents, in order to attract customers. In lowering its off-net price below that of the large mobile operator, the small operator is likely to stimulate greater volumes of outgoing off-net traffic. If the MTR is set above a level that is consistent with the retail on-net price of the

²⁰⁹ Traffic data supplied to the Commission indicates that the SMS traffic from 2degrees to Vodafone as a proportion of SMS traffic from Vodafone to 2degrees in September 2009 was [] **CRI**.

²¹⁰ According to the traffic data supplied to the Commission, the actual level of MTM imbalance in September 2009 was [] **CRI**.

²¹¹ See Ralph and Lanigan, 16 October 2009, p 2, footnote 3.

larger operator, the small entrant may be forced to incur losses on the off-net traffic volumes terminating on the larger network.

289. Accordingly, the Commission has concluded that significantly above-cost MTRs are likely to limit the extent to which an entrant will be able to compete with existing retail on-net prices in New Zealand. Although the entry of 2degrees into the mobile market in New Zealand is a positive development for competition, the competitive impact of 2degrees is likely to be constrained given the prevailing level of MTRs.

Existing competition - Mobile Virtual Network Operators

290. As the Commission noted in the Draft Report, there are a number of MVNOs²¹² currently providing retail mobile services in New Zealand. MVNOs rely on wholesale access to network infrastructure of facilities-based mobile network operators, such as Vodafone and Telecom, in order to provide mobile services to retail customers.
291. In its cross-submission on the Draft Report, Vodafone noted that there are now six individually-branded MVNOs operating on the Vodafone network²¹³, another MVNO (Digital Island) operating on Telecom's network, and one more individually-branded MVNO (Orcon) set to enter the market later in 2009²¹⁴. The Commission understands that Orcon is still yet to launch its mobile offering.²¹⁵
292. Vodafone argued that the introduction of MVNOs is likely to have a positive impact on competition in the retail mobile market. Vodafone also stated that its agreements with MVNOs allow significant flexibility to design retail offers.
293. While the Commission agrees that MVNOs are likely to have some positive effect on the level of competition in the retail mobile services market, the Commission's view remains that MVNOs are unlikely to have the same impact as facilities based competitors. This is because, as noted in the Draft Report, MVNOs are limited in their ability to engage in independent rivalrous behaviour, especially when compared to facilities-based entry.²¹⁶

Existing competition - Barriers to switching networks

294. Barriers to customers switching mobile networks is another factor that is relevant to the level of competition in the retail mobile services market in New Zealand.
295. In the Draft Report, the Commission noted that in the past there had been significant barriers to customers switching networks. Prior to the launch of Telecom's XT network in May 2009, Vodafone and Telecom were operating different technologies (GSM/UMTS and

²¹² A mobile virtual network operator (MVNO) is a company that provides mobile phone service but does not have its own licensed frequency allocation of radio spectrum, nor does it have all of the infrastructure required to provide mobile telephone service.

²¹³ TelstraClear, M2, Compass, Black and White, Callplus and Slingshot

²¹⁴ Vodafone noted that on August 5 2009, the NBR reported that Orcon is due to launch its mobile offering within 60 days. See:

<http://www.nbr.co.nz/article/vodafone-s-heavy-artillery-callplus-confirms-mobile-launch-orcon-way-107003>

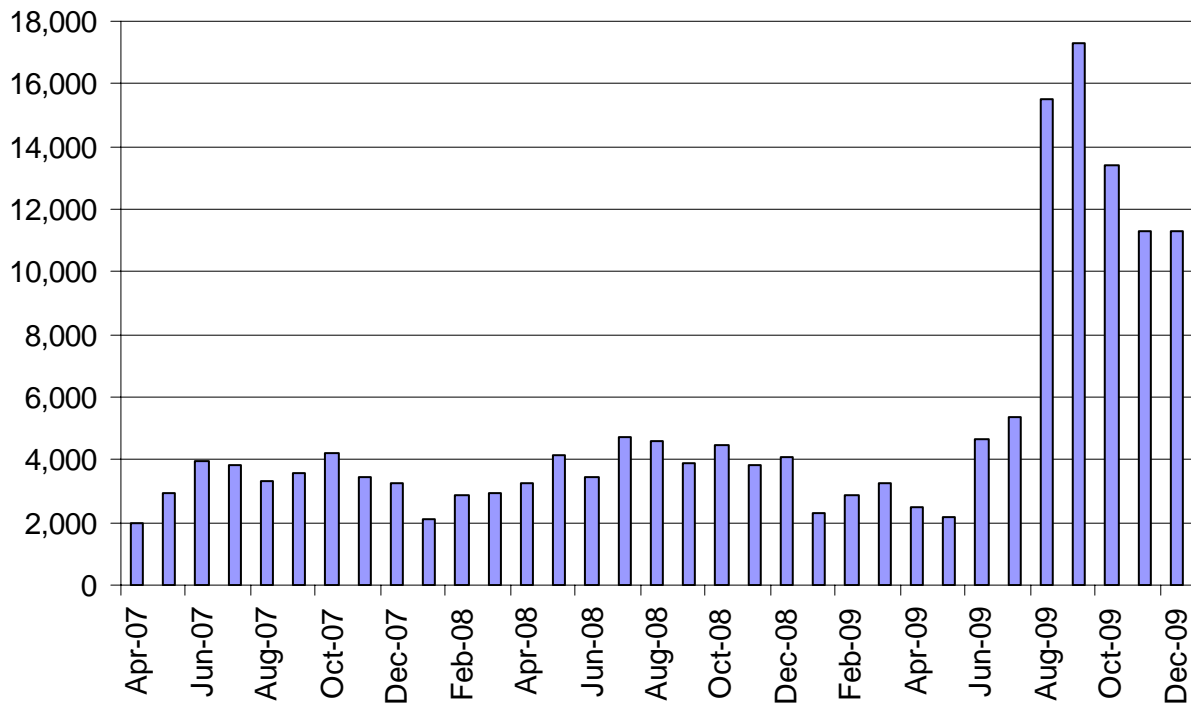
²¹⁵ See http://www.orcon.net.nz/support/page/does_orcon_do_mobile/

²¹⁶ The Commission notes that, at present, many MVNOs in the New Zealand market already have an established presence in the fixed-line telecommunications market and appear to rely on bundling mobile services with voice and/or broadband services.

CDMA, respectively), meaning that in order to switch from one network to the other, an end-user would be required to purchase a new handset.

296. In the present situation, there are now three MNOs in New Zealand, each of which are operating GSM-compatible networks. This means that customers are now potentially able to switch between these three networks without needing to change handset.²¹⁷ However, the Commission noted in the Draft Report that due to the different spectrum used by Vodafone and Telecom, handset compatibility issues are likely to prevent many existing Vodafone handsets from operating on Telecom's XT network.²¹⁸
297. Mobile number portability was implemented in New Zealand in April 2007. As a result, it is now possible for an end-user to switch networks whilst retaining the same phone number. The Commission considers that the introduction of number portability has reduced barriers to switching networks, potentially leading to increased competition.
298. The number of mobile numbers that have ported each month since April 2007 is set out in Figure 12 below.

Figure 12: Ported mobile numbers



Source: TCF ported number data (2010)

299. This indicates that there has been a significant increase in the number of mobile numbers being ported since the launch of 2degrees in August 2009. 17,313 mobile numbers were

²¹⁷ Providing that the handset is capable of operating in the relevant frequency band(s) utilised by Vodafone, Telecom and 2degrees.

²¹⁸ See paragraph 240 of the Draft Report.

ported in September 2009, the highest of any month since the inception of number portability in New Zealand. In a media release dated 12 February 2010, 2degrees noted that over 53,000 customers have ported their 021 or 027 number to the 2degrees network.²¹⁹

300. Accordingly, the Commission considers that barriers to switching networks are now relatively low in the New Zealand market given the inception of number portability and that the three MNOs are all operating GSM-compatible networks.

Potential competition

301. In the Draft Report, the Commission noted that a potential competitor in the mobile market will have four main requirements in order to be able to provide retail mobile services:
- access to spectrum, which is the frequency range over which a mobile network operator can transmit and receive signals between its network equipment and customer equipment;
 - a network of cell sites, in order to provide network coverage to end-users, thereby enabling end-users to send and receive calls and SMSs;
 - a national roaming agreement, to enable the provision of nationwide coverage to end-users whilst the entrant expands its own network deployment; and
 - interconnection agreements with other network operators, in order to enable traffic to be sent between networks.
302. The Commission noted that these four elements of a mobile network can potentially give rise to a number of structural and regulatory barriers to entry. In particular, a potential entrant who does not have access to spectrum, roaming and interconnection on reasonable cost-reflective price and non-price terms is likely to face significant barriers to entry or expansion in the mobile market.²²⁰
303. The Commission also noted that strategic barriers can arise where incumbent businesses intentionally act in such a way to discourage prospective entrants. The Commission considered in the Draft Report whether subscriber acquisition costs and pricing practices of established operators may form barriers to entry.²²¹ For the reasons outlined in paragraphs 249 to 289 above, the Commission considers that heavy on-net discounting from the established operators, in combination with significantly above-cost MTRs, is likely to act as a significant barrier to subscriber acquisition and, therefore, will limit the ability of a new entrant to effectively compete in the market.
304. As noted earlier, 2degrees launched its mobile network following release of the Commission's Draft Report. Although a number of regulatory, government and commercial activities such as mobile number portability, mobile co-location, national roaming, and Vodafone's commercial mobile termination deal, may have reduced barriers to entry to some extent, for the reasons outlined earlier, the Commission's view remains

²¹⁹ See <http://blog.2degreesmobile.co.nz/media/206000-new-zealanders-join-2degrees-mobile-in-first-six-months>

²²⁰ See paragraphs 252 to 279 of the Draft Report for further discussion on these factors.

²²¹ See paragraphs 280 to 292 of the Draft Report.

that existing MTRs represent a significant barrier to entry and expansion in the retail mobile services market.

Commission's conclusion on competition in the retail mobile services market

305. The launch of New Zealand's third mobile network by 2degrees in August 2009 is a positive development for competition in the retail mobile services market. The Commission expects the entry of 2degrees to place increased competitive pressure on the established operators, Vodafone and Telecom. However, the extent to which 2degrees is able to actively compete in the market will depend on the significance of any barriers to entry and expansion.
306. Although a number of barriers to entry to the market have been reduced to some extent in recent times, current pricing practises of the incumbent operators are of concern. In particular, on-net pricing that is prevalent in the market, in combination with significantly above-cost termination rates, has led to the creation of closed networks, with in excess of 80 percent of voice traffic, and over 90 percent of SMS traffic in New Zealand carried on-net. The Commission considers that this is likely to make it difficult for a new entrant to attract subscribers to its network.
307. In the presence of significant on-net price discrimination, the extent to which an entrant is able to compete in the market is likely to be highly dependent on the termination rates it faces. Faced with MTRs that are significantly above cost, a new entrant such as 2degrees is likely to be limited in its ability to constrain established operators in the retail market.

Retail FTM/tolls market

Existing competition - Market overview

308. In the retail FTM and tolls market, at least eight competitors provide FTM and toll calling services. The main participants include Telecom, TelstraClear, CallPlus, WorldxChange, Vodafone, Woosh, Orcon and Compass, along with a number of other smaller operators. Of these suppliers, only Telecom and Vodafone operate both a fixed and a mobile network.
309. In the Draft Report the Commission noted that retail fixed line connections in New Zealand totalled approximately 1.9 million as at September 2008. The Commission also noted that Telecom remains the most significant operator in terms of market share, with a revenue market share of approximately 74.4% and a volume market share of approximately 76% in 2008.

Existing competition - Relationship between retail prices and underlying costs

310. In the Draft Report the Commission considered the extent to which average retail prices for FTM and toll calls exceed the cost of supplying such calls at the retail level. The Commission concluded that retail prices are currently significantly above its estimate of the cost for national tolls and FTM services.²²²

²²² See paragraphs 324 to 328 of the Draft Report.

311. In its submission on the Draft Report, Covec noted that if reductions in the MTR increase the intensity of competition in the FTM market, we should expect to see FTM pass-through increasing and FTM price-cost margins reducing.²²³ However, Covec submitted that:
- there is no evidence that reductions in the MTR have led to an increase in the rate of pass-through in the FTM market; and
 - margins have not been decreasing.
312. Covec submitted that over the entire period from 1997 to 2008 the MTR decreased by about 33 cents per minute, while the FTM margin increased by more than 7 cents per minute. Accordingly, Covec submitted that.²²⁴
- “The Commission’s conclusion that average retail prices for FTM calls are substantially above the cost of supplying these services due to above-cost MTRs is therefore quite incorrect. MTRs have fallen substantially while FTM margins have not. If there is any lack of competition in the FTM market, it does not appear to have been caused by the level of the MTR.”
313. Although the margin between the average retail FTM price and the MTR may have increased by “more than 7 cents per minute” over the period from 1997 to 2008, the Commission considers that the submission from Covec incorrectly focuses on FTM prices in isolation from other services that are typically provided in conjunction with FTM calling.
314. For the purposes of this investigation, the Commission has defined a retail FTM and tolls market, which includes national and international toll calling, as well as FTM calls. In the Draft Report, the Commission noted that the industry average price of national and international toll calls has declined by approximately 25% and 35% respectively since 2004.
315. By focussing solely on FTM prices and margins, Covec incorrectly ignores pass-through of reductions in MTRs to other services provided in this market, such as national and international tolls.
316. Furthermore, the Commission has received a number of submissions indicating that competition in the fixed-line market is increasingly occurring across wider bundles of services. For example, at the MTAS Conference, TelstraClear noted that these bundles typically include components such as local access, broadband and television, as well as FTM and toll calling.²²⁵
317. Accordingly, as noted in paragraph 663 a focus on retail FTM prices only will overlook other ways in which end-users have benefited from lower MTRs. As Covec’s analysis fails to capture these other forms of pass-through, the Commission considers that the conclusion that “if there is any lack of competition in the FTM market, it does not appear to have been caused by the level of the MTR” is likely to be misleading.

²²³ Covec, *MTAS regulation quantitative analysis*, 27 July 2009, p 23, paragraph 109.

²²⁴ *ibid*, p 24, paragraph 112.

²²⁵ MTAS Conference Transcript, 3 September 2009, p 185, lines 13-22.

Existing competition - Impact of above-cost MTRs

318. In the Draft Report, the Commission noted that as long as MTRs exceed the MTAS cost, fixed network suppliers of FTM calls are likely to be constrained in their ability to compete in the retail market.²²⁶
319. Fixed-to-mobile calls originate on a fixed-line network and terminate on a mobile network. An integrated operator, who operates both a fixed-line network and a mobile network, will only pay the applicable wholesale MTR in respect of off-net FTM calls (i.e. calls from its fixed-line network to another operators' mobile network). On-net FTM calls, on the other hand, will not incur a wholesale termination charge.
320. In contrast, as a fixed only operator does not have its own mobile network, it is required to pay mobile operators the applicable MTR in respect of *all* FTM calls supplied to its retail customers.
321. As the mobile termination service is an essential input into the provision of retail FTM calling services, above-cost MTRs have the potential to place fixed-line operators (in particular, non-integrated fixed-line operators) at a significant competitive disadvantage in the retail FTM/tolls market. The ability of fixed-line operators to compete retail prices down towards the cost of supply, which is what would be expected in a workably competitive market, is likely to be limited in the presence of above-cost MTRs.
322. In the Draft Report, the Commission noted that the integrated fixed and mobile operators in New Zealand, Vodafone and Telecom, have been offering retail packages to business customers with retail FTM prices close to or below the wholesale MTR.²²⁷ For example, the Commission noted that Vodafone offers a business landline and calling package called Business Tolls Plus, under which the retail price for FTM calls to a Vodafone mobile subscriber is 13 cpm (excluding GST). The Commission noted that this is below the wholesale price for termination on Vodafone's mobile network, in accordance with the Vodafone Deed.
323. Concerns regarding the impact of above-cost MTRs on the level of competition for the provision of fixed-line services have previously been expressed by CallPlus, who stated that:²²⁸
- '... 'fixed to mobile convergence' means that integrated fixed & mobile providers can bundle and cross subsidise if mobile termination rates are held 'artificially' high. The commission has already noted that bundling, calling circles and on-net pricing are becoming increasingly prevalent in the market. In CallPlus' experience this has become the 'norm' particularly following Vodafone's purchase of iHug. By adopting a cost based approach to termination rates and aligning MTM & FTM rates the commission can create a level playing field for competition in the fixed line market.'
324. At the MTAS Conference, CallPlus elaborated on this, stating that:²²⁹
- '...by artificially high I mean to a point where they can do things like have on-net pricing and still make a healthy margin and then have off-net pricing and make a huge margin, and I think 2degrees

²²⁶ See paragraph 330 of the Draft Report.

²²⁷ See paragraphs 690 to 691 of the Draft Report.

²²⁸ CallPlus, *Submission on the undertakings*, 13 February 2009, p 5.

²²⁹ MTAS Conference Transcript, 2 September 2009, p 51, lines 13-22.

alluded to a penalty rate. And the ability by having those huge margins to also be able to cross-subsidise across into other product lines like broadband with like 12 month free offers and so on and so forth.

So it's simply a matter of using strategies of cross-subsidies on-net and bundles to make price points in other products as part of a bundle when they're selling to a customer. And typically, you know, customers tend to buy a bundle of products these days far more than they used to ten years ago. It's very difficult for a fixed line only operator to compete with that.'

325. The Commission agrees with CallPlus that above-cost MTRs create the potential for integrated operators to effectively cross-subsidise the provision of fixed-line services, generating a significant competitive advantage over non-integrated fixed-line operators.
326. The Commission's conclusion is that significantly above-cost MTRs will limit competition in the retail FTM/tolls market.

Potential competition

327. In the Draft Report, the Commission noted that entry into the FTM and tolls market will generally rely to some extent with interconnection with Telecom's fixed PSTN. Fixed interconnection is regulated under the Act, providing a cost-based regulatory constraint which is likely to enhance conditions for new entry.
328. Furthermore, the Commission noted that the introduction of local loop unbundling should enhance prospects of further facilities-based competition in the retail FTM/tolls market.
329. However, the Commission notes that the prevailing MTRs are significantly above the cost of supplying MTAS, which as noted in paragraphs 318 to 326 above, is likely to limit competition in the retail FTM/tolls market, particularly for non-integrated operators.

Commission's conclusion on competition in the retail FTM/tolls market

330. In summary, Telecom is the main supplier of retail FTM and toll call services in New Zealand, accounting for approximately three-quarters of the retail market in 2008.
331. Although prices for FTM and tolls services have been declining, they remain significantly above the Commission's estimate of the cost of providing these services.
332. The Commission has concluded that current wholesale MTRs are significantly above the cost of supplying MTAS and that this is likely to limit competition in the supply of retail FTM and toll calls, particularly for non-integrated operators.

Conclusion on market definition and competition assessment

333. The Commission has concluded that the following markets are relevant to this MTAS investigation:
 - the wholesale MTAS market;
 - the retail mobile services market; and
 - the retail FTM/tolls market.

Wholesale MTAS market

334. The individual mobile network operator supplying the termination service is the sole supplier of termination of traffic to its subscribers, and consequently, each mobile network operator has a monopoly over the provision of MTAS on its own network. As a result, the Commission considers that existing and potential competition will not provide any significant constraint in the wholesale MTAS market.
335. Accordingly, the Commission's conclusion is that mobile network operators are subject to limited competition in the wholesale market for mobile termination access services on their respective networks.

Retail mobile services market

336. The launch of New Zealand's third mobile network by 2degrees in August 2009 is a positive development for competition in the retail mobile services market. The Commission expects the entry of 2degrees to place increased competitive pressure on the established operators, Vodafone and Telecom. However, the extent to which 2degrees is able to actively compete in the market will depend on the significance of any barriers to entry and expansion.
337. Although a number of barriers to entry to the market have been reduced to some extent in recent times, current pricing practises of the incumbent operators are of concern. In particular, on-net pricing that is prevalent in the market, in combination with significantly above-cost termination rates, has led to the creation of closed networks, with in excess of 80 percent of voice traffic, and over 90 percent of SMS traffic in New Zealand carried on-net. The Commission considers that this is likely to make it difficult for a new entrant to attract subscribers to its network.
338. In the presence of significant on-net price discrimination, the extent to which an entrant is able to compete in the market is likely to be highly dependent on the termination rates it faces. Faced with MTRs that are significantly above cost, a new entrant such as 2degrees is likely to be limited in its ability to constrain established operators in the retail market.

Retail FTM/tolls market

339. Telecom is the main supplier of retail FTM and toll call services in New Zealand, accounting for approximately three-quarters of the retail market in 2008.
340. Although prices for FTM and tolls services have been declining, they remain significantly above the Commission's estimate of the cost of providing these services.
341. The Commission's conclusion is that current wholesale MTRs are significantly above the cost of supplying MTAS and that this is likely to limit competition in the supply of retail FTM and toll calls, particularly for non-integrated operators.

SECTION IV: DETERMINING THE FACTUAL SCENARIO

Introduction

342. In this Section, the Commission sets out its view on the reasonable range of MTAS prices that would be likely to apply under regulation. This range of prices is then used in the subsequent analysis of whether there are grounds to regulate (Section V) and, if there are, whether undertakings should be recommended for acceptance as a potential alternative to regulation (Section VI).
343. The Commission first sets out its conclusions on the appropriate form of regulation and pricing principles that would likely apply if the MTAS were regulated. The Commission then sets out its approach to establish a reasonable range within which the price that would be set under regulation according to those pricing principles is likely to lie.

Form of regulation and pricing principles

344. In defining the factual scenario, the Commission must determine:
- which is the appropriate form of regulation for MTAS (i.e. designation or specification); and
 - the relevant pricing principles that would be appropriate for MTAS.

Form of regulation

345. There are two broad categories of regulated services in Schedule 1 of the Act. For *specified services*, the Commission may determine non-price terms of access only, while for designated *services*, the Commission may determine both price and non-price terms of access.
346. In the Draft Report, the Commission noted that mobile network operators supply the MTAS on their networks, and have done so historically.²³⁰ Existing supply of FTM termination is in accordance with the Deeds, while MTM and SMS termination (and FTM termination prior to the application of the Deeds) have been negotiated on a commercial basis. The Commission noted in the Draft Report that this indicates that access to the MTAS has generally not been a significant issue, nor have non-price terms, and that specification of the service (where the price of the service is not subject to regulation) is therefore unlikely to be a sufficient tool to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services in New Zealand.
347. In the Draft Report, the Commission stated that the main issue around the MTAS has been in relation to price, and formed the preliminary view that the appropriate form of potential regulation to be considered during this investigation is designation of the MTAS.²³¹

²³⁰ MTAS Draft Report, paragraph 357.

²³¹ *ibid*, paragraphs 358 and 359.

348. In submissions on the Draft Report, parties did not comment on the Commission's preliminary conclusion that designation is the appropriate form of regulation under the factual.
349. The Commission has concluded that designation would be the appropriate form of regulation for the MTAS for the purposes of the MTAS Investigation and has reflected this in its analysis of the factual in this Final Report.

Pricing principles

350. For existing designated access services contained in Schedule 1 of the Act, the Commission is responsible for setting both price and non-price terms of access. The price terms must be set according to the Initial Pricing Principle (IPP), or the Final Pricing Principle (FPP) in the event that the Commission undertakes a pricing review.
351. In the Draft Report, the Commission considered whether a cost-based pricing principle or a bill-and-keep (BAK) pricing principle should apply to the MTAS. The Commission concluded that a cost-based pricing principle was likely to give best effect to the purpose statement in section 18 of the Act.²³² According to the Commission's preliminary view set out in the Draft Report, a cost-based MTAS price was likely to promote efficient competition based on the underlying cost of supplying the MTAS, and that neither calling nor network externality effects were likely to justify any departure from a cost-based mobile termination rate.²³³
352. The Commission did acknowledge that there may be circumstances in which BAK may merit further consideration in the future, for example where cross-network traffic is relatively balanced, where BAK pricing has emerged as a commercially negotiated approach, or where calling externalities are present.²³⁴ The Commission also noted that the pricing principle for the existing fixed PSTN interconnection service in the Act includes both cost-based and BAK pricing options, and proposed a similar pricing principle for the MTAS. Specifically, the Commission proposed a FPP based on the forward-looking long-run incremental costs of the MTAS, including a reasonable contribution to forward-looking common costs, or the Total Service Long-Run Incremental Cost (TSLRIC) of the service. The FPP proposed by the Commission in the Draft Report also included pure BAK and hybrid BAK options where the Commission considers that the TSLRIC principle would not give best effect to the purpose set out in section 18 of the Act.
353. In submissions on the Draft Report, both Telecom and Vodafone and their respective economic advisors agreed that TSLRIC is the appropriate pricing principle for the MTAS.²³⁵
354. TelstraClear also supported the Commission's preliminary view that regulation be based on the forward-looking costs of the MTAS, and that TSLRIC rather than LRIC should be the relevant cost standard. According to TelstraClear:²³⁶

²³² *ibid*, paragraph 423.

²³³ *ibid*, paragraph 400.

²³⁴ *ibid*, paragraph 424.

²³⁵ See paragraph 137. See also MTAS Conference transcript, pages 96 and 98.

²³⁶ MTAS Conference transcript, page 101.

‘... the existing scheme of the Act, including PSTN interconnection, UCLL and subloops, was all predicated on a TSLRIC basis not a LRIC basis. It’s not clear to TelstraClear why you would depart from the TSLRIC principle which is set out in the Act simply for the purposes of mobile termination.’

355. In its submission on the draft, 2degrees argued that BAK is a more appropriate pricing principle for SMS termination, given that the costs of SMS are likely to be low.²³⁷ The Commission notes that a form of hybrid BAK is provided for in the Telecom and Vodafone undertakings assessed in Section V of this Final Report, although 2degrees did not consider that this represented a true BAK approach to pricing.²³⁸
356. At the MTAS Conference, there was considerable discussion on the merits of BAK applied to SMS traffic. According to Concept, while there is unlikely to be a strong calling externality justification for below-cost SMS termination rates, the actual cost of terminating SMS traffic is likely to be so small that BAK would be an appropriate interconnection pricing principle for SMS.²³⁹ 2degrees noted that most of its international agreements for SMS are based on BAK.²⁴⁰
357. NERA stated that its view on BAK for SMS was not firm, although submitted that the TSLRIC of SMS termination will be greater than the pure LRIC.²⁴¹ Telecom expressed some concern over a sudden shift to BAK for SMS.²⁴²
358. Vodafone submitted that while the default for SMS termination in international agreements often involves no charging, this primarily relates to person-to-person communication which is usually in balance. Such commercial arrangements are monitored closely, and where traffic imbalances do emerge, for example as a result of commercial spamming, the parties may negotiate the implementation of charging regimes.²⁴³
359. 2degrees also argued that it is appropriate to include only the pure Long-Run Incremental Cost (LRIC) in any cost-based pricing principle for voice termination.²⁴⁴ Elsewhere in its submission, 2degrees indicated that the FPP should be based on LRIC, and that there may be good reasons to reduce the MTAS price below cost to allow for a calling externality.²⁴⁵
360. A joint submission from Woosh and Kordia also supported the use of an FPP based on pure LRIC, excluding any allowance for the recovery of common and fixed costs.²⁴⁶ Woosh/Kordia referred to the European Commission recommendation to set MTRs based on LRIC.

²³⁷ 2degrees submission, 28 July 2009, paragraph 1.23.

²³⁸ 2degrees letter, 16 December 2009, paragraph 7(f).

²³⁹ MTAS Conference transcript, pages 103 and 104..

²⁴⁰ *ibid*, page 106.

²⁴¹ *ibid*, page 104.

²⁴² *ibid*, page 105.

²⁴³ *ibid*, pages 107 to 108.

²⁴⁴ *ibid*, paragraph 6.22(b).

²⁴⁵ *ibid*, paragraph 4.2.

²⁴⁶ Woosh/Kordia submission, 28 July 2009, paragraphs 2.6 to 2.8.

361. The Commission considers that the use of a pure LRIC cost standard for the MTAS is problematic, as it involves the recovery of common costs from services other than the MTAS. As noted by WIK in commenting on the EC recommendation.²⁴⁷

‘The crucial aspect of the approach {proposed by the EC} is that it considers termination as the service that the operator has, as it were, taken into its portfolio as the very last service.

...

WIK-Consult considers this new interpretation of the LRIC cost standard as ill-founded. There is no reason to assume that termination is the last service for which an operator provides capacity in its network.’

362. As TelstraClear noted, TSLRIC is used as the basis for the fixed PSTN interconnection service in the Act. The Act defines TSLRIC to include a reasonable allocation of forward-looking common costs.
363. With regard to calling externalities and the implications for an efficient MTAS price,²⁴⁸ the Commission notes that at the MTAS Conference, 2degrees’ economic experts appeared sceptical that there was a significant calling externality that needed to be taken into account. Dr Haucap stated that while a calling externality could in principle justify an MTAS price below TSLRIC, he was not convinced of such an externality in the present case.²⁴⁹ Dr Ralph also noted that prices should only be adjusted where there was a calling externality that created a market failure. Dr Ralph doubted that this could be demonstrated, and was disinclined to place much weight on such an effect.²⁵⁰
364. As noted at paragraph 136 above, the Commission does not consider that it is appropriate that any adjustments be made to TSLRIC pricing, either in relation to calling externalities or network externalities. The Commission considers that the FPP for the MTAS should therefore be based on TSLRIC, although as noted in the Draft Report, there may be circumstances in which BAK may be appropriate in the future.²⁵¹ The Commission has therefore included BAK within the proposed pricing principles.²⁵²
365. In the Commission’s view, the form of the IPP should reflect that of the FPP. As the relevant FPP for the MTAS is, in the first instance, based on the TSLRIC cost standard, it is appropriate for the IPP to refer to benchmarking against a similar cost standard in other jurisdictions, as the IPP is designed to be a cost-effective and timely way of approximating the price for the service that would result under the FPP. The Commission has amended the wording of the IPP from that used in the Draft Report to ensure that the benchmarking appropriately reflects the TSLRIC-based FPP.²⁵³

²⁴⁷ WIK, “Commentary on issues raised in submissions regarding the Commerce Commission’s MTAS investigation and during the conference on 2 and 3 September 2009”, February 2010, pages 25 and 26.

²⁴⁸ See paragraphs 134 and 135 above for a description of a calling externality and the potential implications for an efficient MTAS price.

²⁴⁹ MTAS Conference transcript, page 97.

²⁵⁰ *ibid*, page 103.

²⁵¹ Draft Report, paragraph 424.

²⁵² This is consistent with the current IPP and FPP for the designated fixed PSTN interconnection service.

²⁵³ Submissions on the issue of whether the Commission should benchmark against regulated prices or cost-based rates are addressed at paragraphs 391 to 403.

The proposed regulatory change

366. Based on the Commission’s conclusions regarding the form of regulation (discussed in paragraphs 345 to 349), and the initial and final pricing principles (discussed in paragraphs 350 to 365), the full text of the proposed regulatory change that the Commission has assessed in this Final Report is the addition of the following services to Part 2, Subpart 1 of Schedule 1 to the Act:

| Mobile termination access services (MTAS) | |
|--|---|
| Description of service: | <p>Termination (and its associated functions) on a cellular mobile telephone network of:</p> <ul style="list-style-type: none"> ▪ voice calls originating on a fixed telephone network; ▪ voice calls originating on another cellular mobile telephone network; and ▪ short-message-service (SMS) originating on another cellular mobile telephone network. <p>For the avoidance of doubt, this service includes the termination of internationally-originated voice calls and SMS, and voice-over-internet-protocol-originated voice calls, where these are handed over at a mobile switching centre in New Zealand.</p> |
| Conditions: | Nil |
| Access provider: | A person who operates a cellular mobile telephone network |
| Access seeker: | A service provider who seeks access to the service |
| Access principles: | The standard access principles set out in clause 5 |
| Limits on access principles: | The limits set out in clause 6 |
| Initial pricing principle: | <p>Benchmarking against the costs of providing similar services in comparable countries that result from the application of –</p> <ul style="list-style-type: none"> (a) a forward-looking cost-based methodology; or (b) if the Commission considers that a forward-looking cost-based methodology does not best give effect to the purpose set out in section 18, whichever of the following methods that the Commission considers best gives effect to that purpose: <ul style="list-style-type: none"> (i) a pure bill and keep method; or (ii) a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and a forward-looking cost-based methodology applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin). |

| | |
|--|---|
| Final pricing principle: | Either – (a) TSLRIC; or (b) if the Commission considers that TSLRIC does not best give effect to the purpose set out in section 18, whichever of the following methods that the Commission considers best gives effect to that purpose: (i) a pure bill and keep method; or (ii) a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and TSLRIC applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin). |
| Requirement referred to in section 45 for final pricing principle: | Nil |

Determining the Factual Price for the MTAS

367. In this section, the Commission sets out its approach to determining the factual price for the MTAS for the purposes of its assessment in this Final Report. As noted above, the Commission considers that no departure from a TSLRIC-based price for the MTAS has been justified as a pricing principle for the factual of regulation. The Commission has therefore sought to identify a factual price that is consistent with part (a) of the FPP in paragraph 366.
368. In considering the likely cost-based price for the MTAS under the factual of regulation, a number of approaches could be taken, such as the development of a full cost model to directly estimate the costs of the MTAS in New Zealand, or the use of benchmarking to establish a reasonable approximation of the New Zealand MTAS cost with reference to forward-looking cost-based prices for similar services in comparable countries.
369. In the Draft Report, the Commission used a benchmarking approach to determine a likely MTAS price under the factual. Most of the submissions on the Draft Report focused on particular aspects of the benchmarking methodology used by the Commission in the Draft Report, rather than on the use of benchmarking *per se* to establish a factual price.²⁵⁴ In its cross-submission, 2degrees submitted that a full-scale cost model is not required:²⁵⁵

‘Vodafone appear to be calling for a full cost model to be developed, which ignores the purpose of conducting a benchmarking exercise. They also suggest that cost modelling should be conducted now, and again if regulation is implemented,. This is clearly not the intention of the regulatory regime and would unnecessarily delay and frustrate the process ...

In our view, it is entirely appropriate for the Commission to benchmark against costs. A benchmark against prices will not provide any indication of the likely cost of the regulated service.’

²⁵⁴ In a submission on behalf of Vodafone, Analysys Mason recommended that the Commission develop a cost model in order to determine the actual costs of supplying the MTAS in New Zealand, or at least revise its benchmarking analysis. Analysys Mason submission, 27 July 2009, page 1.

²⁵⁵ 2degrees cross-submission, 18 August 2009, paragraphs 12.1 and 12.12.

370. The Commission has concluded that a benchmarking approach is appropriate for the purposes of this investigation. While the development of a full cost model would be appropriate where a price was being set under an FPP (where a specific price point were being determined), the Commission agrees with 2degrees that a benchmarking exercise can adequately inform the Commission as to the likely factual price for the MTAS.
371. For the purposes of this investigation, the Commission has therefore used benchmarking to establish a likely range within which a cost-based MTR for New Zealand would lie.
372. A more detailed summary of the Draft Report, and submissions and cross-submissions on the Draft Report, in relation to benchmarking issues is set out in Appendix 4.

Benchmarking

Introduction

373. The purpose of benchmarking is to establish a reasonable approximation of the cost of supplying the MTAS in New Zealand, without having to undertake the lengthy and complex task of developing a cost model. The benchmarking exercise establishes a cost estimate by identifying cost-modelled rates for similar services in other jurisdictions with comparable characteristics.
374. In the Draft Report,²⁵⁶ the Commission noted that the key components of the benchmarking required under the proposed IPP are:
- similar services;
 - comparable countries; and
 - forward-looking cost-modelled rates.
375. On 16 July 2009 Vodafone wrote to the Commission seeking clarity in relation to the way in which the Commission had assessed the countries included in its benchmarking analysis.²⁵⁷ The Commission responded²⁵⁸ by clarifying that it:
- had a preference for MTAS prices to be based on bottom-up LRIC modelling based on current or forward-looking costs;²⁵⁹
 - excluded benchmarks that relied solely on historical costs or top-down modelling; and
 - held the view that the scorched node and scorched earth approaches are both appropriate.

²⁵⁶ Draft Report, p.114

²⁵⁷ Vodafone, *Investigation into Mobile Termination Access Service (MTAS): Benchmarking*, 16 July 2009.

²⁵⁸ Commerce Commission, *Investigation into Mobile Termination Access Service (MTAS): Benchmarking*, 22 July 2009.

²⁵⁹ Although the Commission accepted that models may include some historical cost.

376. While the Commission would be required under an STD process to determine a specific price for a designated service, the Commission is not required to specify a precise price point for the purposes of defining a likely factual scenario in a Schedule 3 investigation. For the purposes of this investigation, it is appropriate to use a range of benchmarked costs, and the Commission has established an upper and lower bound of cost-based benchmarks within which it considers that the cost of supplying the MTAS in New Zealand is likely to lie.
377. In determining the range of benchmarked costs the Commission has had regard to whether the benchmarks (and those proposed by other parties in submissions) are based on forward-looking cost-based prices for similar services in comparable countries.

Similar services

378. In undertaking a benchmarking exercise, the Commission has had regard to whether the overseas services whose cost estimates are being compared are similar to the service for which regulation is being considered.
379. In the current case, the MTAS is a relatively standardised service across different jurisdictions. For example, the ACCC has defined the MTAS as follows:²⁶⁰
- ‘The Domestic Digital Mobile Terminating Access Service** is an Access service for the carriage of voice calls from a point of interconnection, or potential point of interconnection, to a B-Party directly connected to the access provider’s digital mobile network.’
380. One potential issue regarding similar services is whether transport between mobile switching centres (MSCs) is included in the benchmarked service. This is further discussed in paragraphs 902 to 908. In a letter to Vodafone, Telecom and 2degrees on 9 November 2009,²⁶¹ the Commission noted that transport between MSCs is included, with one exception (Norway), in services assessed in the countries in the Commission’s benchmark set.
381. Subsequent to its letter of 9 November 2009, the Commission has noted that the Norwegian modelling does in fact include transport between MSCs in its MTR calculation and that this distinction is made at the regulatory level. The Norwegian cost modelled rate, which is used as a benchmark, is therefore consistent with the modelling used for the other benchmarks in the set so no adjustment to the Norwegian benchmark is necessary. This is confirmed by the WIK Consult report of February 2010.²⁶²
382. The Commission notes that voice and SMS services may be provided over 2G and 3G networks and that the end product, regardless of the technology used to deliver the service, is largely homogeneous.

²⁶⁰ ACCC, *Mobile Services Review: Mobile Terminating Access Service*, June 2004, Appendix A - Service description.

²⁶¹ Commerce Commission, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009.

²⁶² WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commission’s MTAS investigation and during their conference on 2 and 3 September 2009*, February 2010, p.24.

383. In the Draft Report²⁶³ the Commission noted that the significant costs of building a network are already incurred when an operator makes the decision to migrate from a 2G network to a 3G network.
384. The Commission noted that voice and SMS services are not impacted by a migration from a 2G to 3G network and migration is a commercial decision made on the basis of a cost benefit analysis of the additional services a 3G network allows. The Commission concluded that any extra cost of running two networks concurrently should not be borne by the voice and SMS services.
385. The Commission has had regard to the submissions regarding the benchmarking of the cost of transitioning from 2G to 3G technology. Nothing in the submissions have however altered the Commission's view from the Draft Report. The Commission concludes that voice and SMS services are not impacted by the migration from 2G to 3G networks so should not bear the costs of such transition.
386. The Commission is satisfied that the cost-based benchmarks identified by the Commission relate to mobile termination services that are similar to the MTAS considered in this investigation.

Forward-looking cost-based prices

387. For the purposes of its factual/counter-factual analysis, the Commission must form a view as to the likely price range of the service that would be set under the factual scenario of regulation. In this instance, the proposed FPP is based on the TSLRIC of the service. As discussed in paragraphs 350 to 365 the Commission considers that TSLRIC is the appropriate cost standard for the MTAS, a view that is supported by Vodafone, Telecom, and TelstraClear.
388. The Commission has determined that, to be included in the benchmarking set, the costs in the benchmarked jurisdictions must have been determined according to a forward-looking²⁶⁴ cost-based pricing methodology. If the benchmarked costs are inflated above the cost of supplying the MTAS in other jurisdictions, the results are unlikely to provide useful information as to the likely costs of supplying the MTAS in New Zealand.
389. In considering forward-looking cost-based MTRs in other jurisdictions, the Commission has identified those countries where updated and recent information on MTAS costs is publicly available. This has typically been in the form of TSLRIC-based MTRs; rates which are considered to be consistent with the pricing principle being considered for the MTAS in New Zealand.
390. The Commission has also had regard to developments in European jurisdictions where there has been increasing regulatory attention to the level of MTRs. The European Commission (EC) has recently expressed concerns over the lack of harmonisation in the application of cost-accounting principles to termination services.²⁶⁵ The EC stated that the

²⁶³ Commerce Commission, *Draft Report on whether the mobile termination access services...should become designated or specified services*, 30 June 2009, p.141-142.

²⁶⁴ The Commission notes forward-looking costs are generally regarded as being consistent with current costs.

²⁶⁵ EC, *Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU*, 7 May 2009, paragraph (4).

implementation of bottom-up cost models based on current costs and efficient technological choices is consistent with the concept of an efficient network, and that the costs of termination services should be based on forward-looking LRIC.²⁶⁶

Regulated vs. Cost modelled rates

391. Submissions from Vodafone²⁶⁷ and Telecom²⁶⁸ on the Draft Report focussed on what they considered to be the correct MTRs to use in the benchmarking exercise. In these submissions, Vodafone, Telecom and their experts questioned why the Commission as part of the MTAS Investigation is benchmarking against cost modelled rates that are below the regulated MTR set by the regulator for whom the benchmarked models were built.
392. Vodafone²⁶⁹ and Telecom²⁷⁰ also submitted that there are risks surrounding cost model outputs, with Vodafone noting that eight of the nine benchmarked countries in the Commission's sample set do not regulate MTRs at the cost modelled rate. Covec, on behalf of Vodafone, submitted that the Commission should benchmark against current regulated prices, rather than cost model estimates, to be consistent with the IPP.²⁷¹
393. The Commission notes that of these eight countries who regulate MTRs above cost, only the three countries²⁷² are not on a glide-path that concludes within 5% of their cost modelled rate. The purpose of the Commission's benchmarking is to identify a cost-based MTR; the inclusion of current regulated MTRs that lie on a glide-path moving towards cost would result in a benchmarked MTR that itself is in excess of cost.²⁷³
394. As the purpose of the benchmarking is to derive an approximation of the price that would apply under the FPP, the Commission considers that the benchmarks should be based on TSLRIC rates in other jurisdictions. In the case of the current MTAS Investigation, the Commission's benchmarking has therefore focused on TSLRIC-based cost modelled rates, rather than current regulated MTRs which have often been set in excess of TSLRIC. The Commission notes that while current regulated MTRs in a number of other jurisdictions (especially in the EU) are above their cost modelled rates, they are on a glide-path down towards cost modelled rates. Where this occurs, the Commission has benchmarked against the cost-modelled rate, as to do otherwise would risk double-counting glide-paths should the Commission consider one appropriate. This would also lead to a divergence from cost and would thus be inconsistent with the TSLRIC-based FPP. A discussion on the implementation of glide-paths is set out in paragraphs 505 to 518.
395. As noted by the Commission in the Draft Report, there is a significant margin between the cost model estimates and regulated MTRs in a number of the countries in the

²⁶⁶ *ibid*, paragraphs (9) to (13).

²⁶⁷ Vodafone, *Vodafone New Zealand Limited Submission to the Commerce Commission*, 28 July 2009, p.44, para 139.

²⁶⁸ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, para 85.

²⁶⁹ Vodafone, *Vodafone New Zealand Limited Submission to the Commerce Commission*, 28 July 2009, p.44, para 140.

²⁷⁰ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, para 84.

²⁷¹ Covec submission, 27 July 2009, paragraph 52.

²⁷² Australia, Israel and the Netherlands.

²⁷³ The Commission separately considers whether a glide-path should be implemented in the New Zealand context in paragraphs 505 to 518. Inclusion of benchmarks that incorporate a glide-path would risk double-counting such an adjustment should the Commission consider a glide-path to be appropriate.

Commission's benchmarking set.²⁷⁴ The Draft Report noted that while the regulated MTR in Malaysia is set at the cost-based level, some prevailing MTRs in Australia, the Netherlands, and France exceed the respective cost-modelled rates by more than 50%. While regulators in those jurisdictions may have had valid reasons for this, the Commission notes the general agreement in submissions and at the MTAS Commission that TSLRIC is the appropriate measure of cost on which to set the MTR in New Zealand. The Commission has concluded that where prevailing regulated MTRs and cost-based MTRs diverge in other jurisdictions, benchmarking against the latter is more appropriate.

396. The Commission has clarified that, for the purposes of the MTAS, benchmarking should be against costs, rather than regulated prices. Consequently the Commission has amended the wording of the IPP contained in the Draft Report to require benchmarking against costs of providing similar services in comparable countries that use a forward-looking cost-based methodology. The Commission considers that Covec's benchmarking²⁷⁵ has focused on price and cost benchmarking, and Covec's proposed benchmarks provide little guidance on the likely costs of supplying the MTAS in New Zealand.
397. For example, the Commission notes that Covec's benchmarking, based on prevailing MTRs, includes an MTR of 9.39 €cpm for the Netherlands, as of January 2009.²⁷⁶ However, by July 2009, the Netherlands MTR had declined to 7.33 €cpm. This fall in the prevailing Dutch MTR occurred due to progression along a regulated glide-path.²⁷⁷
398. The Commission considers that because a glide-path is generally a price trajectory from an above cost MTR to an MTR at, or near cost, the magnitude of MTR reductions is greater than those exhibited in a cost-path. This is because a cost-path considers only changes in cost and is independent of any notional adjustments that may be involved in setting a glide-path or regulated MTR.
399. For this reason the Commission considers that it is unlikely that the costs of the MTAS had fallen by 22% over a period of six months,²⁷⁸ and that reductions of this magnitude illustrate one of the problems associated with using regulated MTRs as a basis for identifying the costs of mobile termination in New Zealand.²⁷⁹
400. At the MTAS Conference, Mr Antony Srzich from Telecom²⁸⁰ stated that the Commission was deviating from past practice by benchmarking cost modelled rates.
401. There was also considerable discussion at the MTAS Conference regarding whether to benchmark against the Australian cost modelled rate or the regulated rate.²⁸¹ Vodafone and Telecom strongly argued that the regulated rate should be the benchmark for Australia.

²⁷⁴ See Draft Report, Table 25.

²⁷⁵ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.10, Table 4

²⁷⁶ Covec submission, 27 July 2009, Table 5, citing ERG MTR Snapshot as of 1 January 2009

²⁷⁷ OPTA, *Marktanalyse gespreksafgifte op de mobiele netwerken van KPN, Orange, Tele2, T-Mobile, en Vodafone*, 15 May 2007, Table 12, p.143.

²⁷⁸ The Commission notes that Vodafone and others claimed that the Commission's proposed cost path of 10% per annum was unrealistic.

²⁷⁹ The Commission made similar observations about recent reductions in MTRs in other European MTRs surveyed by ERG in the Draft Report. See Draft Report, paragraphs 485 and 486.

²⁸⁰ Ibid, p.136.

²⁸¹ See MTAS Conference transcript, p.125-135.

402. In the Draft Report, the Commission also noted,²⁸² there is a wide range of margins applied across regulators between the cost modelled rate and the regulated rate. The Commission held the preliminary view in the in the Draft Report that foreign regulators, in response to their specific objectives and judgement, adjust their cost modelled rates for a wide range of reasons and that there is no consistent approach to reconciling these adjustments.
403. Having considered all submissions on the approach to benchmarking, the Commission has concluded that it is appropriate to maintain the approach of benchmarking against TSLRIC cost modelled rates used in the Draft Report. Benchmarking against MTRs that exceed TSLRIC costs, such as regulated rates that include glide-paths or other adjustments, risks overstating the likely costs associated with the MTAS and is less transparent and robust than benchmarking against TSLRIC costs.

Benchmark set

404. In the Draft Report, the Commission's benchmark set included nine countries from which cost-based estimates of voice MTRs were publically available.²⁸³ The Commission based its draft factual MTR on the median of these benchmarks, resulting in an estimated cost-based MTR of 7.2cpm. Cost-based SMS MTRs were identified in only two countries, Israel and Malaysia and the Commission based its factual on the upper bound of the two benchmarks.
405. The Commission received submissions on the benchmark set recommending a number of inclusions and/or exclusions of countries in/from the benchmarking set contained in the Draft Report. To be included in the benchmark set, a benchmark has to be cost-based generated by a bottom-up, forward-looking²⁸⁴ TSLRIC modelling methodology. The Commission did not include benchmarks, such as regulated rates, that differed from this criteria, because regulated rates may incorporate any number of notional adjustments, including a glide-path. The Commission's view is that if a glide-path is to be included it should be done after considering the New Zealand mobile environment. This assessment is conducted in paragraphs 505 to 518.
406. Vodafone²⁸⁵ and its experts²⁸⁶ claimed that the Commission omitted two countries, Hungary and Greece, from the benchmarking set even though those countries meet the benchmarking criteria. These submissions also requested that France should be excluded from the benchmarking set as it did not meet the Commission's benchmarking criteria used for the investigation.
407. In their February 2010 report to the Commission,²⁸⁷ WIK Consult addressed the issue of whether the benchmark set from the Draft Report should be considered complete. WIK

²⁸² Draft Report p.120-121

²⁸³ The Commission had these rates and model properties verified by the relevant regulator for each of the nine benchmark countries.

²⁸⁴ The Commission has stated that a

²⁸⁵ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.47, para 150-153

²⁸⁶ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.9, para 45-49 **AND** Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009, p.7, para 11-12.

²⁸⁷ WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009*, February 2010, page 15.

Consult state that the principles of sampling theory should make such questions moot. WIK note that at the time the Commission settled on the benchmark set for the Draft Report, the Commission had collected all benchmarks it was aware of that met the benchmark criteria. WIK Consult then note that adding to the original benchmark set harbours the risk of adding a bias to the benchmark.

408. The Commission considers that it would be inappropriate to have closed the benchmark set after the Draft Report given the significance benchmarking plays in this investigation and the number of submissions raised on this issue. The Commission considers a more complete benchmark set would better help explain the costs of supplying the MTAS and therefore if a new benchmark meets the benchmarking criteria it should be added to the benchmark set from the Draft Report. The Commission does not consider that establishing a more complete set will add material bias to the set.
409. In their cross-submission, Concept Economics²⁸⁸ advocate the use of a US termination rate of USD 0.0007cpm. The Commission does not consider this to be an appropriate benchmark because the MTR is not a cost modelled rate, so does not meet the Commissions benchmark criteria.
410. The Commission had regard to submissions on the appropriate benchmark set and for the reasons set out in the following paragraphs the Commission has concluded that it is appropriate to retain France in the benchmark set, add Hungary to the benchmark set and continue to exclude Greece from the benchmark set.

France

411. In its letter to Vodafone of 22 July 2009,²⁸⁹ the Commission stated that modelling that relies solely on historical cost inputs will be excluded from the benchmarking exercise but that cost models may include some historical costs. Submissions from Vodafone and its experts stated that the French model should be excluded from the benchmarking criteria on the basis that the modelling relies solely on historical cost inputs. The Commission recognises that the cost modelled rates published by the French Regulator (ARCEP) are based solely on historical costs.
412. However, the Commission notes that in 2006 ARCEP conducted two cost modelling exercises, one based on historical cost and one based on current costs and found that there was a cost difference between the two models of 2%.²⁹⁰ The small difference between the two models was attributed to the relatively new capital stock in France. Given the limited difference between the rates in the case of France, the Commission has concluded that France should remain part of the benchmark set, subject to an adjustment of 2% to account for the difference between the current cost model and the historical cost model.

²⁸⁸ Concept Economics, *Cross-Submission*, 18 August 2009, p.42.

²⁸⁹ Commerce Commission, *Investigation into Mobile Termination Access Service (MTAS): Benchmarking*, 22 July 2009.

²⁹⁰ ARCEP, *Décision n° 08-1176 de l'Autorité de régulation des communications électroniques et des postes en date du 2 décembre 2008*, p.10.

Additional information regarding the Hungarian and Greek benchmarks

413. The Commission was unable to obtain confirmation from the Greek or Hungarian regulators on their respective models. However, the Commission did source two forms of information on each of the Hungarian and Greek models²⁹¹. No substantive submissions analysing the modelling conducted in Hungary and Greece have been received by the Commission.
414. Each year the EC publishes a report analysing the telecommunications market and regulatory developments (Annual Telecommunications Report) in each member country. In the latest edition of this, published 24 March 2009, the EC addresses the modelling conducted by both Hungary and Greece. In addition to this EC report, each specific regulatory measure proposed by EU member states are analysed by the EC²⁹²
415. The Commission considers that, in addition to considering relevant source information, it is appropriate to place some weight on the comments of the EC with respect to the Hungarian and Greek modelling in making its assessment as to the extent to which the respective models used in Hungary and Greece satisfy the Commission's benchmarking criteria.

Hungary

416. The Commission has sourced the Hungarian model documentation which states:²⁹³
- ‘The model is a 33% market share of a hypothetical efficient operator with voice call termination long-term forward-looking incremental cost quantify.’ and
- ‘The calculation of the cost of network devices from the network dimensioning based on the quantities and the appropriate use of asset specific assets value serve as a starting point. The value of the assets supporting the internal asset proportions produced from domestic providers through surcharges will be determined. The value of the concession fees actually paid by service providers is determined.’
417. This indicates that the model is based on forward-looking costs, except for the concession fees used in allocating spectrum, which is a historical cost. This is reinforced in comments made by the EC on the Hungarian model.
418. In its Annual Telecommunications Report, the EC made the following comments regarding the Hungarian model:²⁹⁴
- ‘Following the designation of all MNOs in 2005 as operators with SMP in the wholesale mobile call termination market, on 4 October 2006 the NCAH required the MNOs to gradually decrease their MTRs following a specific glide-path towards symmetry between the operators and in cost-oriented MTRs by 1 January 2009 (at HUF 16.84 (about €0.067)). The glide-path is based on a bottom-up LRIC model.’

²⁹¹ The documents obtained on the Hungarian model were the model documentation published in Hungarian, and documents from the EC commenting on the regulatory measures undertaken in Hungary. The documents obtained on the Greek model were a paper submitted to the EC by the Greek regulator outlining their regulatory measures and comments by the EC on these regulatory measures.

²⁹² Ewers Consult, *Draft Measures by NRA: National Consultation and Review by EU Commission*, August 2004.

²⁹³ NHH, *Modelldokumentáció az NHH BU-LRIC modelljéhez*, 2008, p.3, section 1.1.

²⁹⁴ European Commission, *Annex 1- Progress Report on the Single European Electronic Communications Market 2008*.

419. The Commission notes that the EC states that the Hungarian model is a bottom-up LRIC model. This would appear to satisfy the Commission's benchmarking criteria that the MTAS price be based on TSLRIC modelling.²⁹⁵ No reference is made to whether the model is based on current or historical cost. This aspect of the Hungarian modelling was analysed by the EC when Hungary submitted its proposed MTR regulation to the EC in late 2008.²⁹⁶
420. In its analysis of the proposed Hungarian regulation the EC noted the following description of the Hungarian cost modelling process:
- ‘While the model takes asset costs at their gross replacement value into account, the costs relating to concession fees – as part of the capital expenditures – are based on the values actually paid by operators, i.e. on historic / sunk costs. {Footnote: In its reply to RFI, NHH explains that it decided to set historical prices in the model and not to reevaluate concession fee since concession is not tradable (without selling the whole company), thus the calculation of market price holds great uncertainty. For the 900MHz frequency band NHH used the price set by the minister in 2007...}’
421. The Hungarian model, when assessed against the Commission's benchmarking criteria meets the criteria in that it takes the asset costs at their gross replacement value (current cost).²⁹⁷ The modelling is also based on a bottom-up TSLRIC cost standard that allows for the cost recovery of common costs. However, costs used for spectrum appear to be historical.
422. The Commission notes that in the case of the UK costs have been assessed including spectrum valued at historical costs and spectrum valued on a current cost basis. The UK cost model results differ by approximately 5% between a model with historical spectrum costs and a model with current spectrum costs.
423. The Commission expects the difference in the Hungarian model between historical and current spectrum costs to be of a similar magnitude to that found in the UK.²⁹⁸ The Commission is not aware of a similar sensitivity being available for the Hungarian model. Even in the absence of such information, the Commission does not consider a 5% differential (which is considered to be a reasonable proximate for any differential) to be sufficiently significant to not include Hungary in the benchmark set having regard to the other factors which make it consistent with the Commission's criteria for inclusion in the benchmark set. Given that the Commission does not have information as to the actual differential between historical spectrum costs and current spectrum costs for Hungary,²⁹⁹ the Commission has elected not to adjust the Hungarian benchmarked rate. The Hungarian benchmark may therefore slightly overestimate the cost of the MTAS (but not in a material respect).³⁰⁰

²⁹⁵ The Commission notes that TSLRIC is a form of LRIC that allows for an allocation of shared network costs. In this case the Hungarian model allows for these costs.

²⁹⁶ European Commission, *Case HU/2008/0829: Wholesale voice call termination on individual networks in Hungary*, 08/12/2008. p2, section II.3.

²⁹⁷ *Ibid*, p3-4, section III.

²⁹⁸ The cost differential between modelling current and historical spectrum costs is expected to be relatively small. This is because spectrum accounts for a small proportion of the total cost of supplying the MTAS and the difference between the historical and the current spectrum valuation is not expected to be a significant proportion of the total spectrum costs.

²⁹⁹ As is the case for the French termination rate with regards to basing the model on historical costs and current costs.

³⁰⁰ The Commission also notes that in their Cross-submission of 18 August 2009 (p.50), 2degrees believe that the costs in Hungary are likely to be high due to being an ex-communist state. It is not clear to the Commission why this would

424. The Commission considers that the difference between historical and current spectrum costs does not constitute a large enough proportion of total cost to warrant the exclusion of Hungary from the benchmark set. The Commission concludes that it is appropriate to include Hungary in the benchmark set as the Hungarian modelling meets the benchmarking criteria.

Greece

425. In its Annual Telecommunications Report, the EC made the following comments regarding the Greek model:³⁰¹

‘October 2008, EETT took final measures on the analysis of the second round review of the market for voice call termination on individual mobile networks....The termination rates were calculated on the basis of a bottom-up LRIC model.’

426. As with the Hungarian model, the EC state that the Greek model is a bottom-up LRIC model, but makes no reference to whether the model is based on current or historical costs.
427. The Commission notes that in a submission to the EC the EETT summarised the modelling conducted by stating:³⁰²

‘Price control obligation, in the form of regulated termination rates, calculated on the basis of cost result of a bottom up model, using, inter alia, data provided by MNOs.’

428. The Commission notes that this indicates that the Greek modelling has not been conducted in a manner that is consistent with the Commission’s benchmark criteria. This is reinforced by observations of the Greek modelling made by the EC.
429. In its assessment of the proposed MTR regulation in Greece the EC summarised the Greek model.³⁰³

‘EETT (Greek regulator) intends to base its cost model on the historic costs of the actual operators. However, in its response to the request for information EETT explained that, in setting the prices, it corrects the costs in order for them to reflect an average scale operator and to compensate for the differences in spectrum costs. Therefore, according to EETT, the proposed price control corresponds to the costs of an average scale efficient operator. (Footnote: EETT further noted in its response to the request for information that it uses an economic depreciation method to ensure that the cost recovery profile calculated in the model is consistent with current and forward-looking costs.)’

430. According to the EC description, the Greek model is based on historical costs of the mobile operators, as the EETT has made adjustments to the model to replicate a cost recovery profile consistent with current and forward-looking cost recovery.
431. Consistent with their advice on whether to include Hungary in the benchmark set, WIK Consult stated that the ambiguity of the comments from the EC and their belief that

be the case, given that CAPEX costs in the model are derived from replacement costs (current costs) which are influenced by the global market for such goods.

³⁰¹ European Commission, *Annex I- Progress Report on the Single European Electronic Communications Market 2008*.

³⁰² EETT, *Notification of Draft Measures Pursuant to Article 7(3) of Directive 2002/21/EC (Framework Directive) for the Market of Voice call termination on individual mobile networks*, 4 July 2008, p.4 section 3.2

³⁰³ European Commission, *Case EL/2008/0786: Voice call termination on individual mobile networks, 01/08/2008*, Section II.4 p.4

changing the original composition of the benchmark set will add a bias, WIK Consult advised the Commission that the Greek cost model should not be included in the benchmark set.

432. It is unclear whether cost modelling that uses an economic depreciation based on historical cost methodology is consistent with a methodology based on current and forward-looking costs. In the absence of information that transparently outlines the adjustments made by the EETT,³⁰⁴ the Commission is unable to assess whether the adjustments made are reasonable or consistent with the Commission's benchmark criteria.
433. The Commission has concluded that Greece should be excluded from the benchmark set, as, in the Commission's view, the Greek model is inconsistent with the Commission's benchmark criteria.

Currency conversion

434. The Commission has not received any submissions regarding the appropriate method for converting foreign currency termination rates into NZD that alters the view held in the Draft Report. The Commission concludes it is appropriate to use an evenly weighted 10 year exchange rate and PPP rate for converting foreign currency MTRs into NZD.

Summary of benchmark set

435. The Commission sets out the final voice benchmark set in Table 11.

Table 11 Commission's final voice benchmarks

| Updated FX and PPP | MTR Home Currency (year of modelled rate) | Blended FX rate | MTR NZD (Current) |
|--------------------|---|-----------------|-------------------|
| UK | £0.0478 | 0.383 | 0.125 |
| Denmark | kr 0.54 | 4.583 | 0.118 |
| Hungary | HUF 11.8600 | 108.216 | 0.110 |
| Netherlands | €0.056 | 0.536 | 0.105 |
| Norway | NOK 0.48 | 5.037 | 0.095 |
| Israel | ILS 0.173 | 2.426 | 0.072 |
| Australia | \$0.058 | 0.887 | 0.065 |
| Sweden | kr 0.319 | 5.296 | 0.060 |
| Malaysia | MYR 0.0873 | 1.675 | 0.052 |
| France | €0.0270 | 0.548 | 0.049 |

436. The Commission did not receive any substantive submissions advocating for the inclusion or exclusion of any benchmarks in the SMS benchmark set. The Commission has retained

³⁰⁴ The Commission is unable to verify the difference between the historical costs in the model and current costs, as no information is available to the Commission regarding the adjustments made by the EETT or how they impact costs.

the SMS benchmark set used in the Draft Report.³⁰⁵ The Commission sets out the final SMS benchmark set in Table 12.

Table 12 Commission's final SMS benchmarks

| | SMS rate (home currency) | FX Rate | SMS (NZcpSMS) |
|----------|--------------------------|---------|---------------|
| Israel | 0.023 ³⁰⁶ | 2.426 | 0.95 |
| Malaysia | 0.0027 ³⁰⁷ | 1.675 | 0.16 |

Comparable Countries

437. Comparability is important where conditions or factors that are likely to influence the cost of supplying the service vary across jurisdictions. To the extent that such 'cost drivers' can be identified, a benchmarking exercise should consider the effects of such cost differentials to ensure that a resulting benchmarked price reflects the conditions in which the service is supplied in New Zealand.

438. A key step in considering the comparability of countries for the benchmark set is to identify the likely cost drivers for the MTAS service

439. The Commission engaged WIK Consult to provide advice on the sensitivity of cost-modelled MTRs to changes in cost drivers, and to consider the question of comparability. This enabled the key cost drivers of the MTAS to be identified, and has informed the Commission as to what adjustments (if any) should be made to the cost-based benchmarks. WIK Consult noted the following cost drivers:³⁰⁸

- equipment and facilities prices;
- volumes of voice calls and SMS;
- quality of service;
- spectrum band; and
- cost of capital.

440. WIK Consult further advised that:³⁰⁹

'In terms of network segments, the access network consisting of the base stations make up the most important part, shown here with shares of total cost ranging in the WIK models from 63 % to 91 %, but known by experience to usually range between 60 % and 70 %.'

³⁰⁵ The SMS benchmark set is discussed in pages 125-128 of the Draft Report.

³⁰⁶ Analysys, *Response to Issues Raised Concerning the Analysys Cost Model, Report for the Israel Ministry of Communications*, 15 December 2004, p.V, exhibit 0.4. The Israeli SMS benchmark has been adjusted for inflation in the same manner as the voice rate.

³⁰⁷ Malaysian Communications Commission and Multimedia Commission (MCMC), *Access Pricing, A report on a Public Inquiry*, 30 November 2005, p.92, Table 6.3.

³⁰⁸ WIK Consult, *Cost Driver Sensitivity Analyses with Mobile Cost Models* 22 December 2008, pages 17 and 18.

³⁰⁹ *ibid*, page 18.

441. In subsequent advice provided to the Commission, WIK Consult comment on country-specific factors that are likely to influence the costs associated with base stations. This is further discussed in paragraphs 452 to 455 below. The Commission has taken this into account when determining an appropriate cost-based benchmark for New Zealand.
442. Covec, on behalf of Vodafone, expressed concern that the Commission's Draft Report continued to ignore the issue of comparability, despite acknowledging its importance.³¹⁰ According to Covec, of the countries in the Commission's benchmarking sample,³¹¹
- '... Norway is the most comparable to New Zealand, with similar population, land area and population density. ... The estimated termination cost in Norway is NZ 9.5 cpm, which is greater than the median, and so when comparability issues are taken into account this suggests that the median of the Commission's dataset will underestimate the cost of mobile termination in New Zealand.'
443. The Commission notes that none of the criteria used by Covec to conclude that Norway is comparable to New Zealand were identified in Covec's own earlier econometric analysis as being significant determinants of mobile costs.³¹² It is not clear why population or land area, per se, will influence the costs of building and operating a mobile network. For example, total land area is unlikely to be relevant, as mobile networks typically cover relatively small geographical areas within any country.
444. The Commission's Draft Report considered the question of comparability.³¹³ In the Draft Report, the Commission reviewed Covec's earlier benchmarking submission on comparability, and outlined a number of concerns with Covec's analysis. These included concerns over the reliability of Covec's econometric analysis of comparability given the limited dataset, as well as concerns over the MTRs used by Covec as the dependent variable, and the population per cellsite used by Covec as an independent variable.
445. In the Draft Report, the Commission noted that in terms of urbanisation, which Covec identified as a relevant cost driver for the MTAS, New Zealand has a relatively highly urbanised population, indicating a relatively low mobile network cost. The Commission also observed that each of the countries used in the Commission's benchmarking had urbanisation rates within the 60% to 100% range used for comparability purposes in the UCLL STD. The Commission notes that Hungary (which has now been included in the benchmark set) also falls within this range, having an urbanisation rate of 66%.³¹⁴
446. The other variable that Covec found to be significant as a cost driver for the MTAS was population per Vodafone cellsite. However, as noted in the Draft Report, the use of population per Vodafone cellsite assumes that the entire population in each jurisdiction is served on the Vodafone network.³¹⁵ The Commission considered that the number of mobile subscribers, rather than the entire population, per cellsite is likely to be a more relevant driver of mobile costs, as the number of subscribers takes into account the market shares of the mobile operators in each jurisdiction. A higher number of subscribers per

³¹⁰ Covec submission, 27 July 2009, paragraph 41.

³¹¹ *ibid*, paragraph 42.

³¹² Covec, *Benchmarking Mobile Termination Rates*, 6 May 2009, p.30-31.

³¹³ See Draft Report, paragraphs 544 to 570.

³¹⁴ United Nations, *Urban Population, Development and the Environment 2007*, 2008.

³¹⁵ Commerce Commission, Draft Report, paragraph 565.

cellsite will enable the mobile operator to spread the fixed costs of each cellsite over a larger number of customers, thus reducing the average cost.

447. In the Draft Report the Commission noted that Vodafone New Zealand has a relatively high number of subscribers per cellsite, when compared to Australia, the Netherlands, and the UK (which are the three countries that Covoc compared New Zealand to) which suggests that mobile costs are relatively low in New Zealand.
448. In terms of comparability, the costs of providing the MTAS in Australia (as well as the Netherlands and the UK) are likely to be higher than in New Zealand. This suggests that a cost-based MTAS price in New Zealand is likely to be lower than the cost-based MTAS price in Australia (6.5NZcpm), the Netherlands (10.5NZcpm) and the UK (12.5NZcpm).
449. In its initial report to the Commission,³¹⁶ WIK Consult ran three models based on a small densely populated country (SD),³¹⁷ a medium sized densely populated country (MD)³¹⁸ and a large sparsely populated country (LS)³¹⁹. In commenting on its earlier analysis, WIK Consult identified the resulting cost differentials between the SD and LS models:³²⁰
- ‘The WIK bottom-up model was applied to two very different types of countries, one small and densely populated, the other very large and sparsely populated, where one should expect that the latter has conditions making for substantially higher costs. When keeping other things equal except these truly exogenous conditions, the results are that the costs for the large and sparsely populated country are in fact higher than those for the small and densely populated country, but they are higher by no more than 30%.’
450. WIK Consult noted that the variation in the benchmarks used by the Commission exceeds the 30% variation that would be expected due to country-specific differences.
451. WIK Consult referred to the cost modelling work it had undertaken for the ACCC in Australia, and advised that the WIK cost estimates for Australia should be considered an upper value for the likely cost of the MTAS in New Zealand.³²¹ This was based on WIK Consult’s analysis of the country-specific differences between New Zealand and Australia.³²²
452. Firstly, WIK Consult noted that New Zealand has a higher degree of population density than is found in Australia, but a similar rate of urbanisation. This implies that Australian networks will be less efficient than networks in New Zealand because there will be proportionally more coverage-driven network elements, increasing average costs for a given level of coverage. Having a greater proportion of coverage-driven network elements in Australia will also result in average link distances being higher in Australia, resulting in higher costs in Australia.³²³

³¹⁶ WIK Consult, *Cost Driver Sensitivity Analyses with Mobile Cost Models*, 22 December 2008.

³¹⁷ Not unlike Austria, Switzerland or Slovakia

³¹⁸ Not unlike Germany, France or the UK.

³¹⁹ Not unlike Canada, Australia or Brazil.

³²⁰ WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commission’s MTAS investigation and during the conference on 2 and 3 September 2009*, 13 November 2009, page 8.

³²¹ *ibid*, page 11.

³²² *ibid*, pages 16 and 17.

³²³ *ibid*, page 11.

453. The Australian model estimates the cost of an efficient operator, based on a 31% market share. This is significantly below the current market share for the incumbents in the New Zealand market. Modelling conducted by WIK Consult shows that increasing the market share to 44% and 50% decreases costs in the Australian model by 6% and 10% respectively. The current market shares of the New Zealand incumbents are in excess of 44%, further indicating that costs in New Zealand are likely to be below those in Australia.
454. Finally, WIK Consult noted that information gathered from the Commission's Draft Report and from their own modelling experience indicates that Vodafone New Zealand has a significantly more cost efficient network compared to the 31 per cent market share operator in Australia. WIK Consult referred to Figure 11 in the Draft Report, which³²⁴
- “... shows a number of around 2,200 subscribers per Vodafone cellsite in New Zealand while the corresponding number of the 31 percent market share operator in Australia is lower. The more subscribers there are in a cellsite, the more traffic is generated and the lower the cost per minute in a cellsite. As the Commission correctly points out, a higher number of subscribers per cellsite enables the MNO to spread the costs of each cellsite over a greater number of minutes per traffic.”
455. WIK Consult noted that the direct costs of cellsites account for around 65% of total TSLRIC costs, and as a result, the number of subscribers per cellsite is a strong signal of costs.
456. The advice from WIK Consult therefore indicates that an assessment of comparability between New Zealand and Australia would result in the MTAS costs in New Zealand lying below those estimated for Australia.
457. WIK Consult also addressed the significance that GDP per capita (GDP) plays in the cost of supplying the MTAS, and concluded that higher GDP does not necessitate lower costs.³²⁵ India and Bangladesh are example of countries which have low GDP and high mobile traffic volumes.
458. The Commission has considered New Zealand with the countries used in the benchmark set and concluded that no adjustments to the benchmarks are necessary on the basis of comparability. The Commission has however had regard to comparability issues discussed in this section to inform its price point range.

Cross-checks

459. In the Draft Report³²⁶ the Commission used two cross-checks for the voice benchmark. These were the EC's indication that they expect MTRs in the EU to be reduced to approximately 2.5€cpm by 31 December 2009 and the implied on-net termination rate³²⁷ in New Zealand.

³²⁴ *ibid*, page 17.

³²⁵ The chain of thinking being that low income means low demand, low demand means low traffic volumes and thus higher costs.

³²⁶ See Draft Report, paragraphs 528-543

³²⁷ Calculated by removing an 18% charge for retail related costs, from the average on-net retail price and splitting the remainder in two to account for both origination and termination.

460. The Commission has concluded that the EC recommendation should no longer be used as a cross-check in light of submissions received. Analysys³²⁸ and Covec³²⁹ state that the EC recommendation is not a formal target and therefore it is inappropriate to place any weighting on such recommendation as a cross-check. Analysys Mason also state that comparing the Commission's costing methodology of TSLRIC with the pure LRIC used by the EC is not necessarily straightforward.
461. In this Final Report the Commission has therefore used only the implied on-net termination rate as a cross-check for the benchmarking.
462. The Commission has examined retail on-net prices in New Zealand, and has used these prices as a cross check as to the reasonableness of the Commission's cost benchmarks. On-net voice (MTM) and SMS services involve the origination and termination of the call or SMS on the same network, and the retail prices of these services are likely to at least recover the cost of such origination and termination. By deducting the non-termination costs from the retail on-net price, the Commission has compared the resulting termination component with its cost benchmarks and the benchmarks submitted by other parties during this investigation.
463. The Commission observes that on-net traffic accounts for the significant volume of traffic sent in New Zealand. In 2008 mobile on-net voice calls accounted for over 80% of traffic, whereas mobile off-net voice calls accounted for less than 20% of traffic (based on billed minutes). Given these volumes, if the implied on-net termination rate was equal to cost, each incumbent would be making a profit on less than 20% of all voice traffic carried on their respective networks. The Commission considers this to be an unlikely scenario.
464. Under these circumstances the Commission observes that as costs are likely to be less than the implied on-net average retail prices, it is reasonable to use the on-net termination rate implied from these retail prices as a cross-check on the Commission's benchmarking.
465. The Commission has estimated the average on-net retail price for MTM calls and SMS, based on 2008 revenue and volume data supplied by Telecom and Vodafone. Calculating average on-net prices is complicated by the nature of retail pricing in the mobile market, in particular where fixed monthly prices provide for a number of different services, in which case some apportionment of these fixed revenues is required. Given such complexities, the Commission has derived a range of on-net retail prices, from which a range of implied on-net termination rates has been estimated.
466. The resulting range of on-net MTM wholesale termination rates for 2008 is between []CRI. For SMS, the range is []CRI. As discussed later, the Commission considers it likely that on-net prices will continue to decline over time, and has used an annual price reduction of 5% to gauge the potential impact of entry.
467. The Commission notes that the advent of the Telecom 'My Favourites' offer and the 'Non-Stop Text' offer are not sufficiently captured within the period the data was collected. The 'My Favourites' offer was launched near the end of the period the data was collected, and

³²⁸ Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.18-19.

³²⁹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.11-12

the ‘Non-Stop Text’ offer was launched after the data collection period. The impact of these offers are not therefore accurately reflected in the data. The Commission considers that had these offers been captured in the data they would have the effect of reducing the implied on-net termination rate.

468. The Commission refers to the benchmarking submitted after the Draft Report by Covec,³³⁰ and Vodafone³³¹ who propose voice benchmarks between the range of 12.38cpm and 14.30cpm. All of these benchmarks lie above the implied on-net termination rates for voice in New Zealand.

Selection of Price Point for Voice Services

469. In recent determinations where access prices have been set according to a cost-based IPP, the Commission, having regard to section 18 considerations, has selected a price point that balances the likely risks to access seekers and access providers. The Commission selected the median benchmark observations in the UCLL STD, and for the Sub-loop MPF Service in the Sub-loop STD. The Commission moved above the median to the 75th percentile for the Sub-loop Backhaul Service in the Sub-loop STD. In each case the Commission’s selection of a price point has been undertaken on a case-by-case basis.
470. In both the UCLL STD and the Sub-loop STD, the Commission focused on the potential asymmetric outcomes from setting a price that was either too high or too low. Where an access price is too high, the take-up of the regulated access service by access seekers may be impaired, with the result that competition in the downstream markets will be adversely affected. Where an access price is set too low, the access provider(s) of the regulated service may be discouraged from making further investments, as they would be unable to recover their costs in supplying the regulated service. The long-term consequences of under-investment are generally regarded as being potentially more severe, giving rise to the potential for asymmetric outcomes.³³²
471. In the UCLL STD, the Commission noted that UCLL-based entry in other countries had led to access seekers making significant investments in DSLAM equipment in order to be able to offer new and differentiated broadband services to end-users. The Commission also noted that UCLL-based entry has driven a competitive response from incumbents, such as in Australia where Telstra followed access seekers in undertaking similar investments in unbundled exchanges. In light of the significant investments that access seekers for the UCLL service were expected to make, the Commission adopted the median benchmarked observation in the UCLL STD.
472. In the case of the Sub-loop Backhaul service, the Commission again considered the respective investments by the access seekers and access provider in respect of the regulated service. In that case, the Commission noted that Telecom was undertaking significant investment in new distribution cabinets and fibre, and that the potential access seeker

³³⁰ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.11, para 54

³³¹ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.47

³³² For example, in the UCLL STD, the Commission noted that it had previously stated that where tensions exist between static efficiency and dynamic efficiency, the Commission will generally place more weight on dynamic efficiency, as this is considered to better promote competition for the long-term benefit of end-users. Commerce Commission, UCLL STD, paragraph 207.

investment in cabinet-based active equipment was likely to be comparatively small. As a result, the Commission decided to move above the median benchmark in that case.³³³

473. The MTAS relates to interconnection between mobile networks where the access provider of the service (where traffic is terminated on its mobile network) will also be an access seeker (where its traffic is terminated on another mobile network). This creates a greater balance between the investment incentives of the access seeker and access provider than exhibited in the UCLL and Sub-loop services. The Commission therefore considers that the price point selected should be no greater than the median.
474. Vodafone³³⁴ and Telecom submitted³³⁵ that the presence of uncertainty and the asymmetric risk of regulatory error should lead the Commission to exercise a cautious approach to benchmarking and as a result set the benchmark above the median of the benchmark set. Vodafone also submitted that for reasons of dynamic efficiency, choosing a benchmark above the median is well justified.³³⁶
475. In order to gain further insight into the submissions made by parties regarding the asymmetric risk of regulatory error, the Commission queried parties at the MTAS Conference³³⁷ for international evidence of detriment resulting from regulating MTRs too low. The Commission did not receive any evidence of detriment from regulating MTRs below cost.
476. While the Commission recognises that benchmarking provides only a proximate estimate of the actual costs of mobile termination in New Zealand, the Commission does not agree that this justifies a move above the median in this case. MTRs that are significantly above cost are likely to harm a new entrant, such as 2degrees, which has made significant new investment in mobile infrastructure in New Zealand. The Commission has therefore had regard to the uncertainty implicit in benchmarking and its implications not only for Telecom and Vodafone, but also for a new entrant making significant mobile network investments in New Zealand.
477. In their advice to the Commission, WIK Consult commented on the appropriate benchmark price point. According to WIK Consult, there are a number of possible reasons why the variation in the cost benchmarks of the Commission are greater than the 30% variation that is likely to be attributed to country specific factors:³³⁸
- The number of base stations underlying in the cost models may be larger than required.

³³³ In the case of the Sub-loop Backhaul Service, the Commission used the 75th percentile feeder proportion of the UCLL price.

³³⁴ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.44-45.

³³⁵ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.17, para 65.

³³⁶ Vodafone, *Vodafone New Zealand Limited Submission to the Commerce Commission*, 18 August 2009, p.54, para 191.

³³⁷ Commerce Commission MTAS Conference, p.144.

³³⁸ WIK Consult, *Commentary on issues raised in submission regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009*, p.12.

- Information asymmetries between operators and regulators regarding traffic volumes mean that the regulators may be unable to verify the accuracy of the information.³³⁹
- Larger amounts of opex may have been used, and again the regulator may be unable to verify such data.
- The costs of 3G operations may have been included in the cost of 2G operations. This is known to have happened in the case of the UK.

478. As a result, WIK Consult concluded that the use of the median value of the Commission's benchmark set may overstate the actual costs, and recommended that the Commission should instead consider the average of the lowest three benchmarked rates to set a cost-based price for the MTAS in New Zealand. 2degrees³⁴⁰ agreed with the WIK Consult recommendation of using the average of the lowest three benchmarks because they believe it more accurately represents the impact the entry of a third entrant will have on the market in New Zealand. WIK Consult argued against the use of the 75th percentile as proposed by Vodafone,³⁴¹ Telecom³⁴² and their experts because they believe using a benchmark at the 75th percentile will overstate the true costs of termination.
479. The Commission notes, with regards to investment, that to the extent that cost-based MTRs enable a new entrant mobile network operator to compete efficiently in the downstream retail mobile services market, this is likely to increase the competitive pressure on the mobile network operators to continue to innovate and invest.
480. The Commission also notes the developments in cost modelling taking place in Europe and recognises that modelled costs are likely to continue to fall as regulators respond to the EC recommendation. An example of this can be observed in the reduction of the Swedish rate from that used in the Draft Report.³⁴³
481. In considering whether to use a measure of the average benchmarked observation, such as the mean or median value, or whether to move above or below the average, the Commission has had regard to the risks of setting an estimated cost-based MTR for the purposes of the factual that is either significantly above, or below cost, and in particular the implications of such risks for access seekers and access providers. The Commission has also had regard to the comparability of the benchmarked countries in forming a decision on the appropriate price point.
482. Finally, the Commission notes a comment made by Mr Feasey, from Vodafone, at the MTAS Conference when explaining the thinking that regulators go through when setting a regulated MTR. Mr Feasey stated:³⁴⁴

³³⁹ This can be highlighted in this investigation by the number of iterations that were required to finalise data regarding traffic flows between operators and calculating traffic flows requires data from both operators (sending and receiving) which allows reconciliation.

³⁴⁰ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.20-22.

³⁴¹ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.40, para 118.

³⁴² Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.17, para 65

³⁴³ Reduction in the benchmarked Swedish rate from the Draft Report to the Final Report is greater than 13%. This is further discussed in the section of this Section III addressing Changes to Benchmarks.

³⁴⁴ Mobile Termination Access Service Conference, 2 September 2009, p135, lines 11-13.

“...I think generally what regulators do is to say what is a TSLRIC price likely to look like, and they start with a range. There is no single number that spits out, but they make a judgement within that.”

483. Having considered the submissions discussed above and Mr Feasey’s comments, the Commission has concluded that, for the purposes of the MTAS Investigation, it is appropriate to adopt a range of cost benchmarks within which it considers that the cost of supplying the MTAS in New Zealand is likely to lie. The upper bound of the range is defined by the median value of the Commission’s benchmarks of 8.3cpm (based on the benchmark set used in the Draft Report, plus the addition of Hungary), and the lower bound is based on the average of the lowest three benchmarks of 5.4cpm.
484. In setting these two bounds, the Commission has had regard to the cross-check of implied average on-net retail prices and submissions on comparability of the benchmarks and the risks of benchmarking. The cross-check supports the upper-bound of the benchmark range as the median benchmark of 8.3cpm sits slightly below the range of the implied on-net voice termination rates [JCRI.³⁴⁵ A benchmark at the 75th percentile (10.8 cpm) would sit near the upper half of the estimated range of the implied on-net termination rates. MTAS costs are likely to be less than the implied average on-net retail prices (for discussion on implied average on-net termination rates see paragraphs 588 to 616). The Commission concludes that the median of 8.3cpm is an appropriate upper-bound on the cost of providing the MTAS in New Zealand.
485. The Commission concludes that the median used in the Draft Report is the appropriate starting point for the price point. There is no reason to move the price point above the median because the implied on-net termination rates indicate that the median of 8.3cpm is an appropriate upper-bound.
486. At the other end of the range the Commission notes the advice from WIK Consult in relation to the likely relative costs between Australia and New Zealand. WIK Consult³⁴⁶ stated that they consider there are strong reasons to believe that the cost-based MTAS price in Australia, which is NZ6.5cpm, is likely to be higher than the cost-based MTAS price for New Zealand. The Commission also notes WIK Consult’s advice that the average of the lowest three benchmarks best represents the likely cost of the MTAS in New Zealand. Having assessed the analysis conducted by WIK Consult the Commission considers that a benchmark made up of the average of the lowest three MTRs is an appropriate lower bound on the cost of supplying the MTAS in New Zealand.

Selection of Price Point for SMS Services

487. In the Draft Report,³⁴⁷ the Commission noted the sample size of two benchmarks and that the degree of variation in the benchmarked rates generated a degree of uncertainty around the benchmarking exercise for SMS. Due to these factors the Commission considered that caution was necessary in establishing a benchmark for SMS and that it was appropriate to

³⁴⁵ Implied on-net termination rates are calculated from average retail on-net prices by removing 18% of the retail price to allow for retail-related costs, and then splitting the origination and termination legs of the connection evenly. The 2008 implied on-net termination rates have been adjusted by -5% to reflect expected cost reductions.

³⁴⁶ WIK Consult, *Commentary on issues raised in submission regarding the Commerce Commission’s MTAS investigation and during the conference on 2 and 3 September 2009*, p.16.

³⁴⁷ Draft Report, p.125-127.

benchmark SMS termination rates using the upper bound observation of the data set. This gave an initial benchmark of 0.95cents per SMS.

488. The Commission has had regard to the submissions on SMS benchmarks.³⁴⁸ Nothing in the submissions have, however, altered the Commission's view from the Draft Report that the appropriate benchmark is 0.95c/SMS.
489. The Commission considers that, with only two benchmarks available for SMS, there are grounds for a different approach to be taken to the price point selection for the SMS service to that taken for the voice service. Given the uncertainty arising from a small sample set and the consequent risk that the median could under-recover the costs of the SMS service, the Commission has concluded that adopting the upper bound rate remains appropriate. As with the voice benchmarks, the Commission has used the implied on-net termination rate range for SMS as a cross-check for the benchmarking of SMS rates. The SMS benchmark falls within this range.
490. The Commission considers that adopting a lower rate as proposed by 2degrees³⁴⁹ is not appropriate because of the risk that operators will not be capable of recovering the cost of providing an SMS service if traffic is out of balance.
491. Further, the Commission does not consider that SPAM justifies an adjustment to the SMS benchmark due to the Unsolicited Electronic Messages Act 2007.

Conclusion on price points for voice and SMS services

492. The Commission's final voice benchmarks for 2009 are the range from the median of the benchmarked set, 8.3cpm to the average of the lowest three benchmarks, 5.4cpm. The Commission's final SMS benchmark for 2009 is the upper bound of the benchmark set 0.95cpSMS.

Cost-path

493. In this investigation, the Commission is assessing the benefits and costs of MTAS regulation over a period of time. The Commission has therefore considered how a cost-based MTAS price is likely to change over time.
494. In the Draft Report, the Commission identified two jurisdictions in which cost-based MTRs had been determined over a period of time. In Sweden, the regulator had estimated the cost-based MTR for each year until 2012/13, with annual reductions of approximately 10%. In the case of Denmark, the cost-based MTR declined by 13% between 2008 and 2009. In the Draft Report, the Commission concluded that an annual cost reduction of 10% was reasonable.
495. In submissions on the Draft Report, Vodafone³⁵⁰ argued that cost-paths of around -5% are a more appropriate representation of cost-paths. On behalf of Vodafone, Covec³⁵¹ submitted

³⁴⁸ These are summarised in 1 to 66 in APPENDIX 4: SUBMISSIONS ON BENCHMARKING ISSUES

³⁴⁹ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.19, para 3.10

³⁵⁰ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.47, paras 154-156.

³⁵¹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, pages 14-15.

that a -4.7% cost-path is appropriate. In their analysis, Covec use cost-paths from Australia, Denmark, Israel, Malaysia and Sweden and use the median to determine a cost-path of -4.7%.

496. 2degrees submitted that the impact of their entry into the market will create significant initial cost savings that will taper off over time. 2degrees also noted that the Swedish model estimated costs will fall most significantly over the next two to three years and more gradually after that. 2degrees concluded that a 15% reduction in cost is appropriate for the first two years, followed by 10% reductions for the following two years and 5% reductions after that.
497. The Commission notes that all of the cost-paths used by Covec, with the exclusion of Sweden, are historical. Of Covec's benchmarks only Sweden's cost-path of about -10%³⁵² estimated a cost-path beyond 2009. The Commission does not consider cost-paths that estimate costs over historical timeframes such as in the analysis conducted by Covec, to be determinative of future costs.
498. Since the publication of the Draft Report the Commission has been advised on this matter by WIK Consult. WIK Consult observe that the updated UK model estimated a nominal (inflation adjusted) cost-path reduction of 6% per annum and the Swedish model estimated an average nominal reduction in costs of about 9%.³⁵³ WIK Consult³⁵⁴ noted that the Swedish model included forecasts for relatively strong increases in volumes of both voice and data traffic which they believe explains the steeper cost-path. The Commission considers that material increases in voice and data traffic in New Zealand are a likelihood as a result of increased competition, driven by the launch of the 3G XT network and the market entry of 2degrees.
499. However, Concept³⁵⁵ stated in their cross-submission on the Draft Report, that data will be a significant driver in the reduction of termination costs. The mobile data market in New Zealand still only has two competitors; 2degrees is not presently operating a 3G network.
500. The Commission considers that competition in the mobile data market will increase once 2degrees launches data services. Increased competition is likely to increase the growth of data traffic, which will reduce the costs of supplying voice and SMS services on the mobile networks. As 2degrees has not yet launched data services, the Commission considers costs of supplying mobile services in New Zealand will not fall as quickly, in the short term, as that provided for in the first two to three years in the Swedish model. This is because there are at least three MNOs in Sweden with a significant proportion of revenue in the mobile data market.³⁵⁶

³⁵² In real terms.

³⁵³ The Commission notes that since the WIK Consult report was published, the Swedish regulator has since updated its cost model and has estimated a new cost-path that, when the Commission has adjusted using the inflation forecasts (annual average) published by the Swedish Central Bank, a cost-path of about -9% is generated.

³⁵⁴ WIK Consult, *Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009*, 13 November 2009, page 20-21.

³⁵⁵ Concept, *MTAS: Cross-Submission*, 18 August 2009, p.46

³⁵⁶ Bank of America / Merrill Lynch, *Global Wireless Matrix - 1Q09: The Slowdown*, 13 April 2009, page 173, Table 135: Sweden.

501. The Commission considers it is appropriate to use a range of cost-paths, with greater annual reduction applying to the upper band of the voice benchmark range, because there is greater potential for future cost reductions from the upper bound.
502. The Commission concludes that a nominal cost-path of 10% is appropriate to apply to the upper bound of the benchmark set. This is comparable with the Swedish cost-path, which allows for relatively strong increases in volumes of voice and data traffic. The Commission considers such increases in voice and data traffic are likely in the New Zealand market due to significant future reductions in MTRs enabling greater competition in the mobile voice and SMS markets.
503. The Commission concludes that a nominal cost-path, as recommended by WIK-Consult, of -6% per annum should be applied to the lower-bound of the benchmark range. This is consistent with the Commission's acceptance of WIK Consult's recommendation for the lower bound of the benchmarking range.
504. The Commission has used the higher of the two SMS rates as the cost benchmark and considers that a nominal cost-path of -10% per annum should be applied to this benchmark.

Glide-path

505. In the Draft Report, the Commission considered the issue of whether a glide-path should be introduced into the Commission's benchmarking for the purposes of its factual assessment. The Commission's preliminary view was that it would not be appropriate to include a glide-path in the benchmarking, and that the merits of using a glide-path to move towards a cost-based rate should be considered as an implementation issue within the context of an STD in the event the MTAS is regulated.
506. Telecom³⁵⁷, Vodafone,³⁵⁸ Analysys Mason³⁵⁹ and NERA³⁶⁰ have submitted that a glide-path should be applied to the factual. These submitters generally pointed to the need for a balance between the harm that is caused to MNOs by a significant drop in the MTR and the benefit to customers that is generated by the MTR drop. Submissions also stated that a significant drop in the MTR will negatively affect the investment incentives of some MNOs.
507. In contrast, Dr Haucap³⁶¹ submitted, on behalf of 2degrees, that glide-paths internationally have generally been implemented as a tool to encourage and support market entry and are associated with asymmetric rates in favour of new entrants.³⁶² Concept Economics

³⁵⁷ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, p.21.

³⁵⁸ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.40, para 118 and p.67, para 231.

³⁵⁹ Analysys Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.11-13.

³⁶⁰ NERA, *Regulation of the MTAS: Review of the Commission's Draft Report*, 28 July 2009 p.9.

³⁶¹ Professor Dr. Justice Haucap, *A Short Note on the Philosophy and Economic Rationale Underlying "Glide-paths" for the Regulation of Mobile Termination Rates*, 2009.

³⁶² The Commission notes that in their letter of 16 December 2009, 2degrees state they have "long argued that asymmetric rates in favour of new entrants is of less appeal only in circumstances where termination rates are cost based. If the market is distorted in favour of large networks through above cost termination rates, then in order to

submitted, on behalf of 2degrees, that they believed that “the benefits of quickly aligning MTRs with cost are not simply pass-through price reductions but of removing entry barriers to enable competition”.³⁶³ 2degrees concurred with these statements by stating “There is no justification for a glide-path to cost approach”³⁶⁴ and reiterated their view that insulating MNOs against the effects of sudden reductions in MTRs is not a valid reason for a regulatory glide-path.³⁶⁵ 2degrees³⁶⁶ also note that both Vodafone and Telecom have issued warnings about the potential for regulation in the MTAS market in their SEC filings. 2degrees states this indicates that both operators, and their investors, are aware of the potential of regulation and its impact.

508. Generally, glide-paths are used internationally for two purposes. One is to allow a new entrant an asymmetric rate for a period of time upon entry to reduce and eliminate the asymmetry over time, as referred to in 2degrees’ submission. At the MTAS Conference parties generally agreed that it was not appropriate to apply asymmetric rates to the factual of benchmarking cost modelled rates for this investigation.³⁶⁷ Mr McCabe, from 2degrees, stated that 2degrees had not submitted that asymmetric rates were appropriate because they assume the outcome will be true cost, but if this is not the case then their position may change. Mr Matthews, on behalf of 2degrees, followed this up by clarifying that 2degrees may have discussed the possibility of asymmetric pricing in one of their earlier submissions, but it was not a position they were advocating.³⁶⁸
509. Accordingly, the Commission has concluded that asymmetric pricing should not be applied to the benchmarks or in the factual of regulation.³⁶⁹
510. The other purpose for regulatory glide-paths internationally is to allow a period of time for the market to adjust to the new regulatory environment, as submitted by Telecom and Vodafone.
511. In considering glide-paths in the context of the factual in this Schedule 3 Investigation, the Commission has had regard to the welfare gains to customers stemming from an immediate reduction of MTRs to cost and the detriment such an immediate regulatory change may cause to MNOs.
512. An immediate reduction to a cost-based MTR, at the time regulation of the MTAS is assumed to have effect, would ensure the competition issues identified in the competition assessment in paragraphs 165 to 332 above would be alleviated earlier than if a glide-path was implemented.

minimise those distortions it would be appropriate to allow the new entrant to enjoy termination rates at a higher level to the incumbents” p.3, para 7(e)

³⁶³ Concept Economics, *MTAS Cross-submission*, 18 August 2009, section 4.3.7.

³⁶⁴ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, p.3, para 7(d)

³⁶⁵ 2degrees, *Submission on Revised Undertakings*, 16 October 2009, p.2-3.

³⁶⁶ 2degrees, *Cross-Submission – Commerce Commission Draft Report on MTAS*, 18 August 2009, p.41, para 8.29-8.30.

³⁶⁷ MTAS Conference transcript, p.116-117.

³⁶⁸ Other submissions in relation to asymmetric prices are discussed in paragraphs [881 to 888] in Section VII of this Final Report.

³⁶⁹ The Commission notes that in their letter of 16 December 2009, 2degrees re-raised the issue in the context of Commission comments in its letter to parties of 3 December 2009 (Commerce Commission, *Process for the final stage of MTAS investigation*, 3 December 2009) regarding reciprocity between and asymmetric pricing in undertakings.

513. However, the Commission recognises that a significant reduction in the MTR may cause disruption to the business plans of MNOs and, as noted above, glide-paths are often allowed for internationally to reflect this. For example, Ofcom³⁷⁰ has noted that an immediate reduction to a cost based MTR does not allow adequate time for MNOs and customers to adjust to new MTR environment and take these changes into account in their business plans and planned capital expenditure.
514. The Commission also notes that MNOs are likely to have taken the MTR into account when developing the terms of contract mobile plans, and immediate reductions in MTRs may affect the profitability of some customers on longer term contracts. The Commission notes that according to the data responses provided during this investigation, historically, at least 10% of all retail mobile customers are on a contract longer than 12 months.
515. The Commission does note that both Vodafone and Telecom have issued a warning to investors of the potential for regulation in their SEC filings, indicating that both operators are aware of the potential for regulation. The Commission does not however believe that awareness alone of potential regulatory change sufficiently mitigates the negative risk to investment that a significant immediate drop in the MTR may cause.
516. The Commission is of the view that particular regard must be had to New Zealand specific conditions when assessing whether it would be appropriate to include a glide-path in the factual for the MTAS Investigation. These include the following::
- the prevailing MTRs are set through ‘quasi-regulatory’ Deeds entered by Telecom and Vodafone with the then Minister in 2007, which conclude in 2012. MNOs have based and implemented their business plans on the MTRs set out in those Deeds and allowing a glide-path in the factual would take that into account;
 - a third MNO, 2degrees, has recently entered the New Zealand mobile market, at a time where there is 100%+ penetration and significant on-net discounting (with on-net traffic accounting for 80%-90% of traffic), which presents a significant barrier to efficient entry and expansion which will continue until such time as a regulatory change takes effect. Allowing a glide-path in the factual would defer the timeframe for these barriers to be addressed; and
 - the regulatory environment in New Zealand has a lag between any decision to regulate, should the Commission recommend regulation and the Minister accept the recommendation, and the implementation of a regulated MTR through the completion of the STD process. In the event that regulation is introduced, the time taken to formulate an STD, assumed in this Schedule 3 Investigation to be 9 months, would provide MNOs with some time over which to adjust to lower MTRs, which effectively represents a glide-path of sorts such that a glide-path in the factual is not appropriate (or the length and nature of any glide-path should reflect this).
517. The Commission has concluded that, while the Commission would be required under an STD process to determine if a glide-path should be incorporated into the price for a designated service, it is not required to determine finally for the purposes of a Schedule 3 investigation which, if any, glide-path would be appropriate in the event of regulation.

³⁷⁰ Ofcom, *Mobile Call Termination – Statement*, 27 March 2007, p.167, para 9.172

518. Having had regard to submissions and the considerations discussed above, the Commission's has concluded that, for the purposes of the MTAS Investigation and in particular the assessment in Sections V and VI of this Final Report, it is appropriate to assess the following two scenarios:

- the first factual scenario involves an immediate reduction in MTR to cost once the STD process has been completed, such that the cost-based MTR would take effect from January 2011. This scenario involves no regulatory glide-path; and
- the second factual scenario involves a more gradual reduction in MTR to cost, such that the cost-based MTR would be reached by January 2012. Under this scenario, the MTR would be reduced in two steps, with the first occurring in January 2011 (accounting for two-thirds of the reduction to the cost-based level), with a second reduction to reach the cost-based level occurring in January 2012 (accounting for the remaining one-third).³⁷¹ This scenario involves a regulatory glide-path of one year, which in effect provides for a two-year transition to cost-based MTRs.

Changes to benchmarks

519. Since the publication of the Draft Report, the Commission has made the following changes to the benchmark set:

- Foreign exchange rates used to convert foreign currency MTRs into NZD have been updated from the Draft Report to cover the 10 year period from 4 November 2009;³⁷²
- PPP rates used to convert foreign currency MTRs into NZD have been updated from 2007 rates to 2008 rates;³⁷³
- The French MTR benchmark has been adjusted upwards by 2% to account for the difference between forward-looking cost and historical cost model results³⁷⁴; and
- An adjustment has been made with respect to the Commission's benchmarked rate for Sweden. The Swedish regulator has updated their modelling,³⁷⁵ which has resulted in lower cost modelled rates.

³⁷¹ The Commission considers that it is appropriate to use this two-thirds/one-third combination for the purposes of the second factual scenario. A number of other jurisdictions have introduced glide-paths that require a target MTR to be achieved over a period of two to three years. In the New Zealand context, the regulatory STD process would be expected to take a period of time to determine the cost-based MTR, and as noted above, the Commission has assumed that this would occur by the end of 2010, with no earlier reduction in MTRs. In order to account for the MNOs enjoying higher MTRs over the 2010 period in which the STD is prepared (because the glide-path can't begin until a regulated MTR is set, despite the decision to regulate being made), the Commission considers it appropriate that the reduction from prevailing MTRs to the cost-based level under the regulatory glide-path be introduced in two steps with the first reduction involving two-thirds of the total reduction required to reach the cost-based level, and the second involving one-third of the total reduction.

³⁷² All foreign exchange data has been sourced from oanda.com

³⁷³ IMF PPP (2008) rates, sourced from

<http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/weoselco.aspx?g=2001&sg=All+coun+tries>, using the variable "Implied PPP conversion rate".

³⁷⁴ This adjustment is made to be consistent with the 2% difference ARCEP found between the estimate of their model based on historical costs and their model based on current costs.

Conclusions on Determining the Factual Scenario

520. The Commission has concluded that designation would be the appropriate form of regulation for the MTAS under the factual, and that the relevant pricing principle for a designated MTAS would be based on TSLRIC.
521. The Commission has undertaken a benchmarking exercise to identify a price for the MTAS that would likely be determined under TSLRIC-based regulation. In determining the range of benchmarked costs the Commission has had regard to whether the benchmarks (and those proposed by other parties in submissions) are based on forward-looking cost-based rates for similar services in comparable countries.
522. The Commission has concluded that benchmarking against MTRs that exceed TSLRIC costs, due to glide-paths and other notional adjustments, risks overstating the likely costs of the MTAS.
523. The Commission has amended the benchmark set used in the Draft Report. The Commission's set of cost-based voice benchmarks used in this Final Report now includes Hungary. The SMS benchmark set has not changed from that used in the Draft Report.
524. The Commission has considered New Zealand's comparability with the countries used in the benchmarking of cost-based MTRs in this investigation and has not made any adjustments to the benchmarks on the basis of comparability. The Commission has used comparability considerations to inform the price point range.
525. The Commission notes that both the voice and SMS benchmarks sit below the implied on-net termination rates, while benchmarking conducted by Vodafone,³⁷⁶ Telecom³⁷⁷ and their experts³⁷⁸ sit above the implied on-net termination rates. The Commission has concluded that implied on-net termination rates for voice and SMS are appropriate cross-checks for the benchmarking.
526. The Commission has taken into account the substantial investments being made by each of the mobile operators, and the extent to which these investments are likely to be affected by the level of the MTR. This is consistent with the Commission's approach to selecting a price point in previous Commission decisions.
527. For the purposes of this investigation, the Commission has established a range of cost-based voice benchmarks within which a factual price for the MTAS in New Zealand is likely to lie. The upper bound of this range is the median of the Commission's entire benchmark set, or 8.3cpm for 2009. The lower bound of this range is the average of the lowest three benchmarks of the Commission's benchmark set, or 5.4cpm for 2009.
528. For SMS termination, the Commission has used a 2009 cost estimate of 0.95cpm for the SMS benchmark.

³⁷⁵<http://www.pts.se/upload/Ovrigt/Tele/Bransch/Kalkylarbete%20mobilmät/Samråd%20vår2009/Prisrekommendation-fran-1juli-2009.pdf>

³⁷⁶ Vodafone, *Vodafone New Zealand Limited Submission to the Commerce Commission*, May 2009, p.51.

³⁷⁷ Telecom, *Submissions on the Schedule 3A Undertakings Received by the Commission*, 13 February 2009, p.9.

³⁷⁸ NERA, *MTAS Benchmarking – Response to Commission Comments on Undertakings*, 6 May 2009, p.9; and, Covec, *Benchmarking Mobile Termination Rates*, 6 May 2009, Table 7, p.25.

529. The Commission's benchmarked rates are calculated as declining over time to reflect likely movements in cost. The Commission has also used a range within which the Commission considers the appropriate MTAS cost-path lies. The Commission concluded that a cost path of -10% per annum should be applied to the upper bound of the benchmarked range and a cost-path of -6% per annum, should be applied to the lower bound of the benchmark range. The final benchmarks being outlined in Table 13:

Table 13 Final Benchmark (NZcpm, second + second)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------------------|------|------|------|------|------|------|------|
| <i>Voice</i> | | | | | | | |
| Upper Bound Benchmark | 8.3 | 7.5 | 6.7 | 6.1 | 5.4 | 4.9 | 4.4 |
| Lower Bound Benchmark | 5.4 | 5.1 | 4.8 | 4.5 | 4.2 | 4.0 | 3.7 |
| <i>SMS</i> | | | | | | | |
| Benchmark | 0.95 | 0.86 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |

530. The Commission concludes that for the purposes of assessing the impact of regulation under a Schedule 3 investigation, it is appropriate to consider two scenarios which represent appropriate bounds for what is likely to occur under regulation if a glide-path is considered appropriate. The lower bound is an immediate implementation of a cost-based MTR on completion of the STD and the upper bound is a two year glide-path, which includes the timeframe required to complete an STD. The final factual is accordingly set out in Table 14:

Table 14 Final Factual (NZcpm, second + second)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------------|-------|-------|------|------|------|------|
| MTM/FTM | | | | | | |
| <i>no regulatory glide-path</i> | | | | | | |
| Upper bound factual | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| <i>regulatory glide-path</i> | | | | | | |
| Upper bound factual* | 18.45 | 10.18 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual* | 18.45 | 9.14 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| SMS | | | | | | |
| Factual (cpSMS) | 9.50 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |
| Factual* (cpSMS) | 9.50 | 3.63 | 0.69 | 0.62 | 0.56 | 0.50 |

* Includes a one-year regulatory glide-path.

SECTION V: ARE THERE GROUNDS TO REGULATE?

Assessment to Determine Whether There Are Grounds To Regulate

Approach to assessment

531. In this section, the Commission considers whether there are grounds for recommending regulation of the MTAS by comparing the potential impact of cost-based regulation of the MTAS (the **factual** scenario) to what would likely occur in the absence of such regulation (the **counter-factual** scenario). This assessment forms part of the stage 1 assessment. The impact of cost-based regulation of MTAS is likely to be felt in a number of downstream markets in which the MTAS is used to supply retail services to end-users.
532. In considering whether or not to recommend regulation of the MTAS, section 19 of the Act requires the Commission to consider, amongst other matters, the purpose set out in section 18 of the Act and to make a recommendation that the Commission considers best gives, or is likely to best give, effect to the purpose set out in section 18. According to sections 18(1) and 18(2) of the Act:
- ‘18 Purpose**
- (1) The purpose of this Part [2] and Schedules 1 to 3 is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
- (2) In determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the efficiencies that will result, or will be likely to result, from that act or omission must be considered.’
533. The Commission has therefore had particular regard to whether regulation of the MTAS would promote competition in each of the relevant downstream markets for the long-term benefit of end-users in those markets. Increased retail competition is likely to result in better outcomes for end-users, for example, through lower prices, greater innovation in retail packages, and more efficient investment decisions by both fixed and mobile operators:
- in the retail fixed market, in which FTM calls are supplied, the Commission has considered whether regulation of MTAS is likely to promote competition between existing and potential suppliers of calls that originate on fixed networks and terminate on mobile networks; and
 - in the retail mobile market, in which MTM calls and SMS are supplied, the Commission has considered whether regulation of MTAS would promote competition, not only between established retail competitors such as Vodafone and Telecom, but also in terms of lowering barriers to entry and/or expansion facing a new mobile entrant, such as 2degrees, and other potential suppliers.
534. As discussed below, in comparing a factual scenario of regulation to a counter-factual of no regulation, the Commission has used both quantitative and qualitative analysis of the potential consequences in the relevant downstream markets.

535. For example, the quantitative analysis includes the model of FTM termination rates developed by the Commission in the Draft Report, as amended by the Commission in light of submissions on the Draft Report. A range of potential benefits and detriments for end-users resulting from regulated FTM MTRs is estimated by the Commission using this analysis.
536. The qualitative analysis of the likely impact of regulating the MTAS focuses on the likely impact of such regulation in the downstream mobile services market, and in particular whether termination rates for MTM and SMS traffic that more closely reflect the Commission's estimate of the likely cost of the MTAS in New Zealand will promote competition and reduce the barrier identified in the competition assessment with respect to the mobile services market.
537. A more detailed summary of the Draft Report, and submissions and cross-submissions on the Draft Report, is set out in Appendix 5.

Quantitative and qualitative analysis

538. As described at paragraph 116, the MTAS are wholesale inputs that are used to supply retail calling and SMS services that terminate on a mobile network. A reduction in MTR will therefore lower the wholesale costs of providing FTM and MTM calls and SMS. The resulting impact on retail prices paid by end-users – and hence the level of consumer surplus enjoyed by such end-users – will depend on a number of factors, including the impact of lower MTRs on wholesale revenues, and the level of pass-through.
539. In respect of FTM calls, a fixed operator will pay the MTR in order to complete the call from its fixed-line subscriber to a mobile subscriber. For a fixed operator, the MTR is solely a source of cost,³⁷⁹ and so a reduction in MTR is likely to lead to a reduction in retail prices, which can be quantified given reasonable assumptions around the likely level of pass-through. However, as noted below, for a mobile operator supplying MTM calls and SMS, the MTR is both a source of cost (on outgoing off-net MTM and SMS) and revenue (on incoming off-net MTM and SMS). The impact of a reduction in MTR on retail prices for MTM and SMS will therefore be more complicated, and will depend on the net flow of traffic between mobile networks. Given the complexity of measuring this impact, in assessing the likely impact of regulation in the downstream mobile market the Commission has therefore focused on whether regulation would address the barrier to entry and expansion in this market identified earlier³⁸⁰ in a more qualitative manner.
540. In the Draft Report, the Commission used both qualitative and quantitative analysis to evaluate the potential impact of regulation in the relevant downstream markets in which FTM and MTM/SMS services are supplied. In the retail FTM/tolls market, the Commission developed a quantitative model to estimate the potential benefits from regulating FTM MTRs. As noted above, a reduction in the MTRs represents a reduction in the cost of supplying FTM calls, and it is considered that at least some proportion of this is likely to be passed through to end-users, for example in the form of lower retail prices, which is assumed to stimulate increased demand for retail services. The Commission

³⁷⁹ The fixed operator will earn wholesale revenues on incoming mobile-to-fixed (MTF) calls, but the fixed termination rate will be unaffected by the mobile termination rate.

³⁸⁰ See paragraphs 272 to 289.

quantified the potential changes in consumer and total surplus that could result from cost-based regulation of the FTM MTR.

541. However, in the downstream mobile services market, the potential impact of cost-based regulation of MTRs is more complicated, given that a lower MTR represents not only a reduction in the costs incurred by a mobile operator for outgoing off-net calls (and SMS), but also a reduction in wholesale revenues earned on incoming calls (and SMS) from other mobile networks.³⁸¹ The net effect of a reduction in MTRs on retail prices (for MTM and SMS) will therefore depend on the traffic flows between mobile networks.
542. In the Draft Report, the Commission noted earlier submissions from Vodafone that call traffic between mobile networks is typically balanced, with traffic flows unrelated to the size of the respective networks.³⁸² As a result, Vodafone claimed that the net effect in the mobile market of a reduction in MTRs will be close to zero, as a mobile network operator's reduction in outgoing termination costs will be cancelled out by a corresponding reduction in incoming termination revenues, with nothing to pass through into retail mobile prices.
543. In the Draft Report, the Commission responded by noting that during 2006-2008, MTM traffic flows between Vodafone and Telecom had shown an imbalance in Vodafone's favour. The Commission concluded that above-cost MTRs are likely to have resulted in retail MTM prices in excess of the cost of supplying these services, and that a move towards cost-based MTRs is likely to result in lower retail prices for end-users.
544. A significant concern identified by the Commission in the Draft Report in relation to mobile markets related to the barrier to entry and expansion faced by a small mobile network as a consequence of above-cost MTRs and retail on-net discounts. In reducing MTRs towards cost, and lowering this barrier, the Commission concluded that competition in the retail mobile market would be promoted, as the small entrant would be able to compete more vigorously for subscribers. However, the Commission noted the difficulty in quantifying the incremental effect of lower MTRs upon entry.³⁸³
545. In its submission on the Draft Report, Vodafone argued that the Commission should undertake quantitative modelling of the benefits and costs of regulation of MTM termination rates.³⁸⁴
546. Vodafone has subsequently acknowledged the difficulties of quantifying the impact of regulation:³⁸⁵

‘Although we acknowledge that cost-benefit modelling is not always a straightforward matter, this does not mean that the cost modelling cannot or should not be done. The reference [in a previous letter] to other regulators having undertaken cost-benefit modelling addressed that point. We did not deal in the letter with how modelling has been done by other regulators, or what aspects those models may have sought to identify, because such details would not have been relevant to the point we wished to highlight.

³⁸¹ For a fixed operator supplying FTM calls, there is no offsetting reduction in wholesale revenues earned on MTF calls. Termination of such calls has been subject to regulatory constraint since the introduction of the Telecommunications Act in 2001.

³⁸² Draft Report, paragraph 772.

³⁸³ *ibid*, paragraph 753.

³⁸⁴ Vodafone submission, 28 July 2009, paragraph 294.

³⁸⁵ Vodafone letter to Telecommunications Commissioner, 28 August 2009.

Responding to your specific question [to identify the regulators to which Vodafone has referred as having undertaken cost-benefit modelling for MTM, in particular modelling which identifies the impact of regulation on efficient expansion and entry], Vodafone is aware that the EC and Ofcom are among those regulators that have undertaken cost-benefit modelling. In the Netherlands, the Dutch Trade and Industry Appeals Tribunal ordered OPTA to issue new decisions concerning mobile termination, in part because of the absence of modelling.’

547. The Commission notes that the quantitative work undertaken by other regulators of which it is aware typically does not consider the issue of how regulation might affect entry. Of the examples referred to by Vodafone:
- the EC analysis of the mobile market focuses on the extent to which MTR reductions would flow through into retail mobile prices and the resulting impact on welfare. However, the EC analysis does not appear to quantify the impact of regulation on entry, which is a key consideration in the Commission’s current investigation. The EC does note that in addition to their quantitative estimations, ‘it is also important to take account of the expected dynamic consequences of the Recommendation, in particular for investment and competition’,³⁸⁶
 - in the UK, Ofcom’s quantitative welfare analysis only focuses on the structure of mobile prices. Ofcom specifically stated that it has not attempted to quantify the welfare gains from regulation removing the risk of anti-competitive behaviour towards smaller entrants.³⁸⁷ Ofcom notes that its quantification of benefits will therefore tend to underestimate the full benefits of regulation,³⁸⁸ and
 - in the case of OPTA’s decision in the Netherlands, the Commission understands that this case is yet to be resolved, and that the nature of any modelling to be undertaken by OPTA remains unclear.
548. In addition, the ACCC’s assessment of the potential impact of regulating MTRs in the retail mobile services market was largely based on qualitative considerations.³⁸⁹
549. The Commission also notes that the Final Report of the Telecommunications Inquiry (2000) commented on the place of quantitative and qualitative analysis when assessing the potential benefits and costs of regulation (emphasis added).³⁹⁰

“In both the Issues Paper and the Draft Report, the Inquiry requested that submissions include consideration of the **quantitative and qualitative costs and benefits** of regulatory proposals. While some submitters put forward qualitative insights, there was **an absence of quantification of costs and benefits**, except for local-loop unbundling.

In the case of unbundling, **the analysis has been contentious, largely as a result of differing views on key assumptions**, and the fact that the **impact on dynamic efficiency was not estimated**.

³⁸⁶ EC Commission Staff Working Document accompanying the Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, “Implications for Industry, Competition, and Consumers”, 7 May 2009, pages 28 to 29.

³⁸⁷ Ofcom, “Mobile call termination statement”, 27 March 2007, paragraph A19.3.

³⁸⁸ *ibid.*

³⁸⁹ ACCC, “Mobile Services Review Mobile Terminating Access Service”, June 2004, pages 125 to 130.

³⁹⁰ Ministerial Inquiry into Telecommunications, Final Report, 27 September 2007, pages 52 and 53.

The dearth of quantification of costs and benefits in otherwise very thorough submissions illustrates that **such quantification is not always possible, particularly in the context of forward-looking regulatory proposals.**

Notwithstanding the difficulty of undertaking a quantitative cost-benefit analysis, the Inquiry, following the release of the Draft Report, commissioned the Centre for Research in Network Economics and Communications (CRNEC), among other things, to:

- provide a commentary on practical issues in undertaking cost-benefit analysis of telecommunications policy, in particular the quantification of such analysis;
- assess the costs and benefits of regulating specific services ... including both qualitative insights and, where possible, quantification; and
- provide an analysis on the costs and benefits of other possible forms of government involvement.’

550. The Inquiry also noted CRNEC’s view that it is not possible to quantitatively forecast changes in productive or dynamic efficiency:³⁹¹

‘Productive efficiency improvements can be assessed ex post, and current efficiencies can be compared across suppliers, but only qualitative predictions can be made on the effect that regulation will have on production costs. Forecasts of the effect of regulation on dynamic efficiency are even less quantifiable. In both cases, however, carefully designed regulation is capable of promoting efficiency gains. Moreover ... the measures proposed in the Inquiry’s Final Report will have the effect of promoting productive and dynamic efficiency. Our quantifications, which include no contributions from productive or dynamic efficiency changes, are therefore conservative in their estimation of the benefits of regulation.’

551. The Inquiry concluded that:³⁹²

‘Quantifying the benefits of allocative efficiency is sometimes possible and in such cases the Inquiry has sought to do so. The Inquiry has also applied a qualitative cost-benefit methodology in testing its regulatory proposals. Underlying this are the principles that additional efficient competition and additional efficient investment in, and use of existing, infrastructure are desirable. This warrants actions that will minimise barriers to efficient competition and investment.’

552. The Commission also notes comments from Dr Haucap in his submission on behalf of 2degrees. According to Dr Haucap,³⁹³

‘... the welfare effects of enhanced competition are notoriously difficult to estimate due to the dynamic nature of competition. Since it is often almost impossible to predict firms’ business strategies (e.g., with respect to horizontal and vertical product differentiation) and the innovations they may come up with, it is often considered a good approach for public policy to concentrate on market liberalisation and safeguarding the competitive process. Hence, the focus should be on removing artificial barriers to entry and preventing incumbent firms from erecting strategic barriers to entry as far as possible in order to let the firms compete on a level-playing field without further Government intervention.’

553. At the MTAS Conference, Dr Haucap reiterated the difficulties in attempting to model the dynamic effects of competition, and agreed that such modelling was likely to be more difficult than the kind of cost modelling that would be required to establish a TSLRIC-based price.³⁹⁴ Both Covec and NERA agreed that modelling the dynamic welfare effects

³⁹¹ *ibid*, page 53.

³⁹² *ibid*, page 53.

³⁹³ Dr Justus Haucap, “Short report on the Assessment of the Expected Costs and Benefits of Lower Mobile Termination Rates in New Zealand”, paragraph 11.

³⁹⁴ Conference transcript, pages 177 and 178.

of competition would be relatively difficult, with NERA suggesting that empirical evidence of the impact of entry in overseas markets may be useful.³⁹⁵ Covec noted that Concept's analysis had gone some way towards analysing the potential welfare impacts of competition in the mobile market. Covec also argued that it is important to have a plausible explanation as to why competition would be enhanced (as a result of regulation) and how this benefits consumers.³⁹⁶

554. The Commission notes that NERA's suggestion of looking at the empirical impact of entry in other markets is what the Commission did in the Draft Report, where pricing trends in Australia and the UK were reported around the time at which mobile entry occurred in those markets. Based on those pricing trends, the Commission considered that an incremental price reduction of -5% p.a. would be reasonable to illustrate the potential static benefits that may arise from a more vigorous entrant in the retail mobile market.
555. With respect to Covec's comment on the Concept welfare analysis, the Commission notes that Concept's analysis is based on a given price effect which Concept attribute to regulation. This is similar to the approach taken by the Commission in the Draft Report and described in the preceding paragraph, although the price effect attributed by the Commission to regulation is somewhat lower.³⁹⁷
556. The Commission agrees with Covec on the importance of explaining how competition would be expected to be enhanced as a result of regulation. As noted at paragraph 544 above, an important implication for competition in the retail mobile services market of moving MTRs towards cost relates to the removal of the strategic barrier to entry from above-cost MTRs and on-net discounting. This is a dynamic consideration that facilitates entry and expansion over time. In light of the above, the Commission considers that it is appropriate to use a more qualitative analysis of the potential impact of regulation in the mobile service market, with an important consideration being whether wholesale MTRs will enable an efficient entrant to purchase wholesale termination services and be able to compete with the retail prices of the established mobile operators.
557. The Commission has concluded that the impact of regulation on entry and expansion in the mobile market is best assessed on a qualitative basis in this case, although the Commission has had regard to the quantitative examples used in the Draft Report and in submissions on the Draft Report.³⁹⁸
558. In a letter to the Commission notifying its withdrawal of its undertakings, 2degrees claimed that the Commission had reached critical conclusions without conducting a full welfare analysis.³⁹⁹ 2degrees noted that Telecom and Vodafone had earlier criticised the Commission's lack of a full welfare analysis of the impact of regulation. According to 2degrees, Concept's submission, in which it develops a welfare analysis of the benefits of

³⁹⁵ *ibid*, page 179.

³⁹⁶ *ibid*, pages 179 and 180.

³⁹⁷ For example, in Concept's baseline scenario, a 60% price effect over 5 years is used, with a sensitivity around a 30% price effect. In the Commission's analysis, an annual 5% price effect is used, based on evidence of entry in other markets. This is further discussed below, at paragraphs 643 to 644.

³⁹⁸ As discussed later, these examples typically estimate the potential gains associated with a given price effect of regulation. As noted in the last sentence of paragraph 544 above, the key difficulty is quantifying the likely price effect in the mobile market that can reasonably be attributable to MTR regulation.

³⁹⁹ Letter from 2degrees to Telecommunications Commissioner, 16 December 2009, paragraph 7(a).

regulating MTM MTRs and highlights the distortions of above-cost MTRs, addresses Telecom's and Vodafone's criticisms. 2degrees suggested that the Commission had placed little weight on Concept's evidence.

559. The Commission disagrees with 2degrees' claim that little weight has been placed on the Concept analysis. As discussed in paragraphs 284 to 288 above, the Commission has considered Concept's submission. In the Commission's view, the analysis provided by Concept highlights the potential competition concerns that the Commission identified in the Draft Report, although the Commission does have some reservations about a number of the actual assumptions used by Concept.⁴⁰⁰ In addition, as noted in paragraph 555 above, Concept's analysis of the price effect of entry is similar to the Commission's analysis, with the difference being the magnitude of the entry-induced price reduction that is attributed to lower MTRs.
560. The Commission has also taken into account the direct costs of the regulatory process associated with the preparation and application of a standard terms determination (STD).⁴⁰¹

Conclusion on quantitative and qualitative analysis

561. Any form of cost-benefit analysis in the context of a proposed change such as designation of MTAS is inherently qualitative. The Commission's task is to determine which outcome best or is likely to best promote competition for the long-term benefit of end-users, pursuant to sections 18 and 19 of the Act. Any such assessment of the likely effects on a long-term, forward-looking basis is subject to some assumptions, and therefore requires the exercise of value judgements on behalf of the decision maker. That the decision maker has had regard to quantitative examples and models as part of its assessment does not alter the fact the overall assessment is inherently qualitative.
562. Many submissions received by the Commission appeared to conflate a cost-benefit analysis with some kind of quantitative modelling that would definitively determine the extent of any expected costs or benefits of the Commission's recommended position. The fact that submitting parties have disagreed so strongly about the appropriateness of the qualitative assumptions underpinning the various quantitative examples arising out of the decision-making process demonstrates the range of value judgements that can be adopted for any quantitative exercise. One of the key benefits of using quantitative examples is that it focuses debate on these key underlying assumptions, and for this reason quantitative analysis should be undertaken when it can be done effectively. The Commission has benefited greatly from the debate around the assumptions underpinning its quantitative analysis, and has sought to adjust its assumptions accordingly where appropriate.
563. The Commission has undertaken quantitative analysis to the full extent that such analysis is useful to inform its decision making, and to assist it in making the decision that best or is likely to best give effect to the section 18 purpose statement. Further, the Commission considers that its overall qualitative analysis, including those aspects informed directly by

⁴⁰⁰ See paragraph 287 above. As noted in that paragraph, the authors of the Concept submission dated 18 August 2009 appear to have had similar concerns and subsequently moderated some of the traffic assumptions (for SMS, although not for voice).

⁴⁰¹ See paragraphs 765 and 766.

quantitative examples, provide a reasonable and reliable basis for assessing the full costs and benefits of the regulation of MTAS.

Two-stage consideration of regulation

564. The Commission has evaluated the likely benefits from cost-based regulation of the MTAS, by comparing the outcomes that the Commission considers are likely to result from such regulation, with what would likely occur in the absence of regulation. As discussed in paragraphs 48 to 53 above, the Commission's analysis of the benefits and detriments of regulation involves two stages, the first involving a comparison of cost-based MTRs with the prevailing MTRs (based on the Deeds), and the second involving a comparison of cost-based MTRs and the Final Undertakings.
565. The first-stage comparison of cost-based regulation and prevailing MTRs is discussed in this section. The second-stage comparison involving regulation and the latest undertakings is set out in Section V.

Summary of the counter-factual for the stage one assessment

566. As discussed in Section III, the Commission has defined the following as the relevant markets for the MTAS Investigation:
- the wholesale MTAS market;
 - the retail mobile services market; and
 - the retail FTM/tolls market.
567. The Commission has concluded that mobile network operators are subject to limited competition in the wholesale MTAS market, and that current MTRs are significantly above the cost of supplying the MTAS. Under the counter-factual of no regulation, MTRs are likely to remain significantly above cost.
568. MTRs that are significantly above the cost of terminating calls and SMS on mobile networks are likely to have adverse consequences for competition and end-users in the relevant downstream markets. In the retail mobile services market, while there has been new facilities-based entry in the form of 2degrees, the Commission's view is that above-cost MTRs will limit the extent to which the entrant and any future potential entrants will be able to compete with existing retail on-net prices in New Zealand. Although the entry of 2degrees into the mobile market in New Zealand is a positive development for competition, the competitive impact of 2degrees is likely to be constrained under the counter-factual, given the prevailing level of MTRs.
569. In the retail FTM/tolls market, above-cost MTRs create the potential for integrated operators of fixed and mobile networks to effectively cross-subsidise the provision of fixed-line services, generating a significant competitive advantage over non-integrated fixed-line operators. Accordingly, the Commission's view remains that current MTRs will limit competition in the retail FTM/tolls market under the counter-factual.
570. The counter-factual MTRs for MTM and FTM traffic, expressed on a second+second basis used in the stage one assessment in this Section V are summarised in Table 15.

Table 15: Counter-factual MTRs (Deeds) (NZcpm, second+second for MTM/FTM)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------|-------|-------|-------|-------|-------|-------|
| MTM/FTM | 17.72 | 16.42 | 15.14 | 13.91 | 13.11 | 12.95 |
| SMS* | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 |
| | | | | | | |

* cpSMS

Summary of the factual for the stage one assessment

571. Under the factual scenario, the MTAS is taken to be subject to cost-based regulation.⁴⁰² In order to establish the likely cost of the MTAS, the Commission has undertaken cost benchmarking of the MTAS in other countries, and has concluded that for the purposes of this investigation, a range of cost-based MTRs is appropriate.
572. For the factual scenario, the Commission has assumed that a regulated cost-based MTR would be determined through an STD process that would be completed by the end of 2010. This allows for a period over which the Commission undertakes an STD for the MTAS, with the price set according to the initial pricing principle set under Schedule 1 (as amended).
573. As discussed in paragraph 518, the Commission has considered two scenarios for the implementation of the reduction in MTRs to a cost-based level determined in an STD, the first factual scenario involves an immediate reduction to the cost based MTR and the second factual scenario involves a more gradual, two year transition to cost.
574. During the period over which the STD process is undertaken (i.e. April 2010 to December 2010 approximately), the Commission has assumed that the MTR would remain at 15cpm, which is the rate in the Deeds applicable until 31 March 2010. In the event that the MTAS is regulated, the Deeds will cease to apply, but the Commission considers it reasonable to assume that the MTR as of the date of termination of the Deeds would continue to apply (but would not be reduced further in 2010 as would be the case had the Deed continued to apply).
575. For the purposes of this investigation, the Commission has determined that a range of cost-based MTRs are an appropriate proxy for the likely MTRs that may apply pursuant to an STD process under the factual of regulation (other than for SMS). The upper bound of this range is based on a 2009 cost benchmark of 8.3cpm for calls terminating on a mobile network, with an annual cost reduction of 10% (“upper bound factual”). The lower bound of this range is based on a 2009 cost benchmark of 5.4cpm for calls terminating on a mobile network, with an annual cost reduction of 6% (“lower bound factual”).⁴⁰³

⁴⁰² In the Draft Report, the Commission concluded that the appropriate form of regulation would be designation (including price terms), with a pricing principle based on TSLRIC, or if TSLRIC is not considered to best give effect to section 18 of the Act, pure or hybrid bill-and-keep. See Draft Report, paragraph 437.

⁴⁰³ See paragraphs 527 and 528.

576. For SMS termination, the Commission has used a 2009 cost benchmark of 0.95cptxt, with an annual cost reduction of 10%.⁴⁰⁴
577. The factual MTRs used in the Commission's stage one assessment to determine whether there are grounds to recommend regulation are summarised in Table 16.

Table 16: Factual MTRs (NZcpm, second + second)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------------|-------|-------|------|------|------|------|
| MTM/FTM | | | | | | |
| <i>no regulatory glide-path</i> | | | | | | |
| Upper bound factual | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| <i>regulatory glide-path</i> | | | | | | |
| Upper bound factual* | 18.45 | 10.18 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual* | 18.45 | 9.14 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| SMS | | | | | | |
| Factual (cpSMS) | 9.50 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |
| Factual* (cpSMS) | 9.50 | 3.63 | 0.69 | 0.62 | 0.56 | 0.50 |
| | | | | | | |

* With a one-year regulatory glide-path

Potential Impact of Regulation of Mobile-to-Mobile Termination Rates

Potential Benefits of Regulation of Mobile-to-Mobile Termination Rates

MTRs and mobile competition

578. The Commission's assessment of the potential benefits of regulation in the downstream mobile market has focused on the extent to which above-cost MTRs are likely to create, or contribute to the creation of, a barrier to entry and expansion in this downstream market. While regulation of the MTAS may also increase competition between the larger established mobile operators, due to the off-net traffic imbalance historically observed between Telecom and Vodafone,⁴⁰⁵ the Commission considers that the key way in which regulation will promote competition in the retail mobile market in New Zealand is through lowering this barrier to entry and expansion that would otherwise be faced by a small mobile operator.
579. The MTAS is used as an input into the provision of retail MTM calls and SMS, and is both a source of wholesale costs for a mobile network (where a mobile call or SMS is originated by one of its subscribers and terminated on another mobile network i.e. an outgoing off-net MTM call or SMS) and a source of wholesale revenues (where an incoming call or SMS from another mobile network is terminated). The extent to which a reduction in MTRs will promote or increase competition in the retail market in which MTM calls and SMS are

⁴⁰⁴ See paragraph 528.

⁴⁰⁵ See paragraph 773 and Table 50 in the Draft Report.

supplied to end-users will therefore depend on the net traffic flows between mobile networks.

580. As noted in the competition assessment, the Commission considers that the combination of a high wholesale MTR and on-net discounting at the retail level may result in a significant barrier to expansion by a small entrant such as 2degrees.

581. This can be seen with respect to the hypothetical retail prices set out in Table 17 below, where an incumbent mobile operator initially offers an on-net price of 5cpm and an off-net price of 10cpm. If a small entrant offered the same prices, the incumbent's customers are unlikely to have an incentive to switch, in particular due to the larger established customer base on the incumbent network (and the greater value of being able to call this large customer base at the lower on-net price).

Table 17: Hypothetical example

| | Incumbent | Entrant |
|----------------------|-----------|---------|
| Retail on-net price | 5cpm | 5cpm |
| Retail off-net price | 10cpm | 5cpm |

582. In order to attract subscribers, the entrant is likely to have to offer lower retail prices. For example, the entrant may decide to set its off-net price equal to its on-net price in order to be able to break into the closed calling circles of consumers on the incumbent's network. This would provide existing subscribers on the incumbent's network with an incentive to switch, as they would still be able to call the incumbent's subscribers at the low price (5cpm), but would also avoid paying the incumbent's higher off-net price (10cpm) to call subscribers on the other network.⁴⁰⁶

583. As the submissions from 2degrees and its experts have noted, the relatively low off-net price of the entrant (5cpm) will lead to relatively high demand for off-net calls by the entrant's customers, and the relatively high incumbent off-net price (10cpm) will lead to relatively low demand for off-net calls by the incumbent's customers. This should result in an expected net traffic flow from the entrant network to the incumbent network, and (in the presence of symmetric termination rates) a net payment of wholesale termination revenues from the entrant to the incumbent.⁴⁰⁷

584. If the wholesale MTR exceeds the implied termination component of the on-net retail price, the entrant is unlikely to be able to recover its costs. In the above example, if the wholesale MTR is 10cpm, the entrant will make a loss on every off-net call, and would have to either increase its off-net price (and in so doing risk becoming unattractive to subscribers due to its relatively small customer base), or maintain the lower price and continue to incur losses on off-net calls. In either case, the entrant may be forced to exit, or at best would be constrained in its ability to compete for subscribers.

⁴⁰⁶ There is already some evidence of such a price effect, with 2degrees' off-net price of 44cpm being considerably lower than the pre-paid off-net prices of Vodafone and Telecom (89cpm).

⁴⁰⁷ Depending on the size of this traffic imbalance, there may also be a net payment in the presence of asymmetric termination rates.

585. However, where the wholesale MTR is set with reference to the retail on-net price shown in Table 17, an MTR of 2.5cpm would be set.⁴⁰⁸ Given the retail prices in Table 17, the entrant will be able to cover its costs, both in respect of on-net and off-net calls.
586. While the incumbent will earn a higher margin on off-net calls, as long as it maintains a higher retail off-net price, it will also risk losing retail customers. To the extent that the incumbent responds by lowering its retail off-net price, this would likely result in an increase in off-net calls from its subscribers, and hence reduce any off-net traffic imbalance.
587. Therefore, in assessing whether a MTR will promote or impede competition in the downstream retail mobile market, the Commission has had regard to the level of on-net discounting in the retail market, and how on-net retail prices relate to wholesale off-net termination rates.

Average on-net rates

588. The Commission has analysed retail revenue, volume, and pricing data supplied by Telecom and Vodafone, with a view to establishing an average retail on-net price (or at least a plausible range of such prices). These prices are used to inform the Commission's assessment of what level of MTR will be sufficient to address concerns around potential barriers to entry/expansion, and thereby allow an efficient entrant to compete with the on-net pricing offered by the incumbent mobile operators.
589. The Commission first estimates the average retail on-net prices for MTM and SMS services. The non-termination costs, including retail costs and call origination costs, are then deducted in order to derive the implied on-net termination rates that Vodafone and Telecom charge themselves in respect of on-net traffic.

Retail on-net prices

590. Retail tariffs are generally very heterogeneous. Some retail plans include a number of free or discounted services (on-net MTM, off-net MTM, on-net SMS, off-net SMS, etc) for a fixed monthly subscription charge, and in some cases include unlimited calling and texting to a nominated on-net number(s). As a result, it is necessary to determine average prices (rather than prices for individual plans), although such averaging is complex and, as discussed below, can be subject to considerable sensitivity around a number of underlying assumptions.
591. One of the key issues relates to the treatment of fixed monthly subscription revenues from retail plans that provide a number of services. Such revenues represent a significant proportion of overall mobile retail revenues, and hence the way in which they are apportioned across the various services can have a substantial effect on the resulting average retail prices.

⁴⁰⁸ On the basis that call origination and termination costs are assumed to be the same, and there are no other costs of supplying retail mobile services.

592. Monthly retail subscription revenues have been apportioned across on-net and off-net calls based on usage (i.e. the volume of minutes). This results in an average retail revenue per minute for on-net MTM calls.
593. A further issue relates to whether billed minutes or actual minutes should be used in deriving an average revenue per minute. If billed minutes are used, the resulting retail price is effectively an average retail price based on minute plus second charging, whereas the wholesale rates considered in this Final Report are generally expressed on a second plus second basis. In order to ensure a consistent comparison, the retail prices have been calculated using actual minutes.
594. In deriving average retail on-net prices, the Commission notes the following:
- subscription revenues are apportioned on the basis of usage. For example, for mobile voice calls, subscription revenues are allocated across on-net MTM, off-net MTM, and MTF calls, based on actual minutes. For SMS, subscription revenues are allocated across on-net SMS and off-net SMS, based on the number of SMS;
 - there may be other services which should bear some proportion of the monthly subscription revenues. For example, subscription revenues are likely to provide for some recovery of the costs of providing customers with access to the mobile network. For pre-paid customers, who typically purchase unsubsidised handsets (handset revenue is separately reported in the data provided by Telecom and Vodafone), the above approach may provide a reasonable approximation of the costs of terminating on-net calls and SMS; however, as contract customers typically receive subsidised access (with the monthly subscription revenues contributing to the recovery of the costs of acquiring such customers), it may be appropriate to take this into account. This would reduce the apportionment of subscription revenues to calling services (on-net and off-net MTM and MTF), and lower the implied termination rates;
 - the initial on-net prices derived in this section are based on 2008 revenue and volume data. The on-net prices are unlikely to pick up the full effect of Telecom's My Favourites plan, which was introduced towards the end of the period for which Telecom supplied data. Changes in revenues and volumes will result in changes in average revenues per minute (or per SMS) from one year to another; and
 - the retail on-net prices could contain excess margins (to the extent that there has been limited competition in retail mobile market).
595. As a result, the Commission has considered a range of implied on-net termination rates, rather than a single point estimate. The range is bounded as follows:
- the upper bound is defined where subscription revenues are apportioned based on actual usage; and
 - the lower bound is defined where for contract customers (representing approximately 33% of total mobile subscribers in New Zealand), subscription revenues are excluded (on the basis that the subscription revenues earned from contract customers may be used to cover the costs of acquiring such customers, for example through subsidised

handsets), while for pre-paid customers, subscription revenues are apportioned based on actual usage.

596. The Commission notes that in its submissions on behalf of 2degrees, Concept focused on a single Vodafone retail plan and assessed whether 2degrees would be able to compete with such a plan.⁴⁰⁹ Given that 2degrees is competing against both Telecom and Vodafone in the retail mobile market, the Commission considers that it is more appropriate to use an average retail price that takes account of other retail on-net plans offered by Telecom and Vodafone.
597. Table 18 summarises the resulting average retail prices for on-net MTM and SMS services.

Table 18: Average Retail On-Net Prices for MTM and SMS (2008)

| | MTM (cpm) | SMS (cpSMS) |
|-------------|--------------|----------------|
| Lower Bound | [] CRI | [] CRI |
| Upper Bound | [] CRI | [] CRI |

Non-termination costs

598. From the retail on-net MTM and SMS prices shown above, the Commission has deducted the non-termination costs of supplying retail MTM and SMS services. These include retail costs, and origination costs.
599. In the Draft Report, the Commission deducted retail costs by applying a retail cost margin of 18% to the retail price.⁴¹⁰ The 18% retail cost margin was based on a benchmarked retail avoided cost margin used in previous STDs.⁴¹¹
600. 2degrees has submitted that the 18% margin used by the Commission is likely to underestimate the costs associated with retail functions. In its submission on the 2 October revised undertakings, 2degrees commented on the Commission's benchmarks:⁴¹²

'In support of our view, the Commission has identified benchmarks which are clearly supported by the Commission's cross checks, notwithstanding the fact that those cross checks in our view are conservatively high. They significantly overstate the rate that the incumbents charge themselves, as implied by their retail on-net rates. (We consider that, among other things, the 18% deduction for sale costs is overly generous to incumbents.)'

601. In a subsequent letter to the Commission, 2degrees again commented that.⁴¹³

'... the Commission's arbitrary 18% cost of sales allocation is, in our view likely to significantly underestimate the real avoided costs of wholesale provision.'

⁴⁰⁹ See for example, paragraph 287, final bullet.

⁴¹⁰ Draft Report, paragraph 761.

⁴¹¹ For example, Decision 611.

⁴¹² 2degrees submission, 16 October 2009, paragraph 2.4.

⁴¹³ 2degrees letter, 16 December 2009, paragraph 7(c).

602. The Commission notes that in neither of the above instances does 2degrees substantiate its claim with data on retail costs. However, the Commission has had regard to earlier submissions by Concept on behalf of 2degrees, where Concept provides some indication of retail-related costs.
603. In a submission on the Commission's Mobile Termination Issues Paper, Concept estimate the margins available to an entrant when replicating two retail mobile plans offered by Vodafone.⁴¹⁴ The first plan is Vodafone's Mega Plan which is a contract plan, and the second plan is Vodafone's Supa Prepay plan.
604. Concept assume retail costs per customer to be \$8 per month for contract customers, and \$4 per month for prepaid customers.⁴¹⁵
605. For the Mega Plan, Concept noted that the monthly retail revenue is \$39.95; while for the Supa Prepay plan, Concept assumes an average retail customer spend of \$20 per month plus the addition of 1 Best Mate (\$6 per month).
606. Table 19 summarises the retail revenue and retail cost assumptions used by Concept in its September 2008 submission, and the resulting margin of retail costs as a proportion of the retail revenue. For the contract plan, retail costs account for 22.5% of the retail revenue, while for the prepaid plan, this proportion is 17.3%.

Table 19: Retail Revenues and Retail Costs (Concept, September 2008)

| | Retail Revenue (per month) | | Retail costs | Retail cost margin |
|-----------------|----------------------------|----------|--------------|--------------------|
| | incl GST | excl GST | | |
| Mega (contract) | \$39.95 | \$35.51 | \$8 | 22.5% |
| Supa Prepay | \$26.00 | \$23.11 | \$4 | 17.3% |

607. Concept commented briefly on retail-related costs as part of the 2degrees cross-submission on the Draft Report. According to Concept,⁴¹⁶

'In the US market, post-paid customer acquisition costs, including handset subsidy, are in the range USD270-420. Pre-paid customer acquisition costs are lower.'

608. The Commission has examined the data sources referred to by Concept. The figure of USD270 appears to be sourced from T-Mobile's reported results for its US operation for Q2 in 2009.⁴¹⁷ According to those results, the average cost of acquiring a customer ("Cost Per Gross Add", or "CPGA") was USD270 in Q2 2009, down from USD320 in Q2 2008.
609. T-Mobile also reported monthly ARPU for contract customers of USD52 for Q2 2009 in the US.⁴¹⁸

⁴¹⁴ Concept Economics, "Assessing the Effects of MTM Termination on Mobile Entry and Economic Efficiency", 4 September 2008, Section 3.2 ("Margin Analysis").

⁴¹⁵ *ibid*, page 6.

⁴¹⁶ Concept, "MTAS Cross-submission", 18 August 2009, footnote 34.

⁴¹⁷ <http://www.fiercewireless.com/press-releases/t-mobile-usa-reports-second-quarter-2009-results>

⁴¹⁸ *ibid*.

610. While it's not clear what the average contract life is for T-Mobile, Concept use a two-year period over which to assess mobile margins.⁴¹⁹ T-Mobile's CPGA of USD270 recovered over two years equates to a monthly CPGA of USD11.3 per month, which represents 21.7% of ARPU for contract customers. This is similar to the retail cost margin of 22.5% for the contract plan shown in Table 19.⁴²⁰
611. Given the relative significance of prepaid subscribers in New Zealand (accounting for around 67% of total mobile subscribers), the Commission considers that the data from the Concept submissions on retail cost margins support the Commission's use of a retail cost margin of 18%.
612. In terms of the costs of originating an off-net MTM call or SMS, the Commission assumed in the Draft Report that origination and termination costs are equal.⁴²¹ This was based on the view that the origination and the termination of an MTM call (or SMS) are broadly the same.
613. According to 2degrees, the resulting implied on-net termination rates are in excess of cost.⁴²² The Commission notes that during the course of this investigation, 2degrees submitted an undertaking in which it offered an MTR for FTM and MTM calls of 5.6cpm in 2010.⁴²³ 2degrees has also submitted that the cost of carrying SMS traffic is close to zero.⁴²⁴ This indicates that 2degrees could price its off-net MTM calls and off-net SMS below the average on-net MTM price of Telecom and Vodafone. For an off-net MTM call from a 2degrees subscriber to a Vodafone subscriber for example, 2degrees would incur its actual origination costs on its own network, and pay the wholesale MTR to Vodafone. If actual origination costs are less than the wholesale MTR, then in replicating the on-net retail prices of the incumbents in the retail mobile market, 2degrees would be able to retain a margin equal to the difference between its origination costs and the wholesale MTR.⁴²⁵
614. As the Commission is deriving implied on-net termination rates from Telecom and Vodafone retail on-net prices, in order to assess whether a wholesale MTR would enable an entrant to replicate and compete with those retail on-net prices, the Commission has based its analysis on origination and termination costs being equal.

⁴¹⁹ Concept, "MTAS Cross-submission", 18 August 2009, page 20.

⁴²⁰ The Commission could not verify the USD420 figure referred to by Concept. However, the sources provided in the Concept submission (http://findarticles.com/p/articles/mi_m0EIN/is_2006_Feb_21/ai_n16072670/pg_6/) refer to financial results for Nextel for Q4 2005, in which Nextel report CPGA of USD449 (Nextel note that CPGA is an industry term that is calculated by dividing "selling, marketing and handset and accessory subsidy costs by our new subscribers during the period). Nextel reported monthly ARPU of USD68 for Q4 2005 and "lifetime revenue per subscriber (LRS)" of approximately \$4,857 for Q4 2005. Using a two year contract period, Nextel's CPGA of USD449 equates to a monthly CPGA of USD18.70, which is 27.5% of Nextel's ARPU. However, Nextel's CPGA (USD449) as a proportion of lifetime revenue (USD4,857) is only 9.2%.

⁴²¹ Draft Report, paragraph 761.

⁴²² 2degrees letter, 16 December 2009, paragraph 7(c).

⁴²³ 2degrees undertaking of 2 October 2009.

⁴²⁴ 2degrees submission, 28 July 2009, paragraph 5.2(a).

⁴²⁵ For example, assume that the average retail on-net MTM price in 2010 was 25cpm. Given a retail margin of 18%, the net revenue available to cover origination and termination of the on-net call would be 20.5cpm. The implied termination component would be 10.25cpm, assuming that call origination and call termination are approximately equal. For a 2degrees off-net call, if 2degrees own origination costs are 5.6cpm (as per its undertaking of 2 October), 2degrees could offer a retail off-net price of 19.3cpm (i.e. $(5.6+10.25)/(1-18\%)$), which is lower than the retail on-net price of 25cpm.

Summary of On-Net Termination Rates

615. The resulting implied termination rates for on-net MTM calls and SMS based on 2008 data are summarised in Table 20.

Table 20: Implied On-Net Termination Rates for MTM and SMS (2008)

| | MTM | SMS |
|-------------|---------|---------|
| Lower Bound | [] CRI | [] CRI |
| Upper Bound | [] CRI | [] CRI |

616. Based on the above, the Commission considers that a reasonable range of on-net termination rates for 2008 would be between [] CRI for MTM voice traffic, and [] CRI for SMS traffic.

Movements in retail on-net rates over time

617. The Commission has also considered a reduction in the on-net rates over time. The Commission notes that in their submission on behalf of 2degrees, Ralph and Lanigan have argued that retail on-net prices are likely to continue declining over time as competition intensifies in the mobile market.⁴²⁶ However, it is difficult to forecast such changes.
618. The Commission notes that Ofcom has observed that differentials between on-net and off-net prices have decreased in the UK as MTRs have declined in recent years:⁴²⁷
- ‘... the difference in the level of on-net and off-net call charges appear to have declined. Today there are significantly fewer pre- and post-pay tariffs that have different call charges between on-net and off-net calls than a few years ago when termination rates were substantially higher.’
619. It is not clear whether on-net prices have actually declined in the UK. While on-net prices may decline further in absolute terms, it may also be the case that average off-net prices decline, while on-net prices remain largely static.⁴²⁸
620. The Commission notes that in a competitive market, prices will be driven down towards costs. An average retail on-net price that was based on the cost of supplying retail services would result in an implied on-net termination rate that was also based on the cost of supplying termination services. In terms of the figures below, the average on-net prices would move down towards the cost-based termination rate. In other words, if the increase in competition in the retail mobile market becomes sufficiently strong, Vodafone and Telecom could conceivably respond by dropping on-net prices down to the point where the on-net termination rates coincided with the cost of termination.

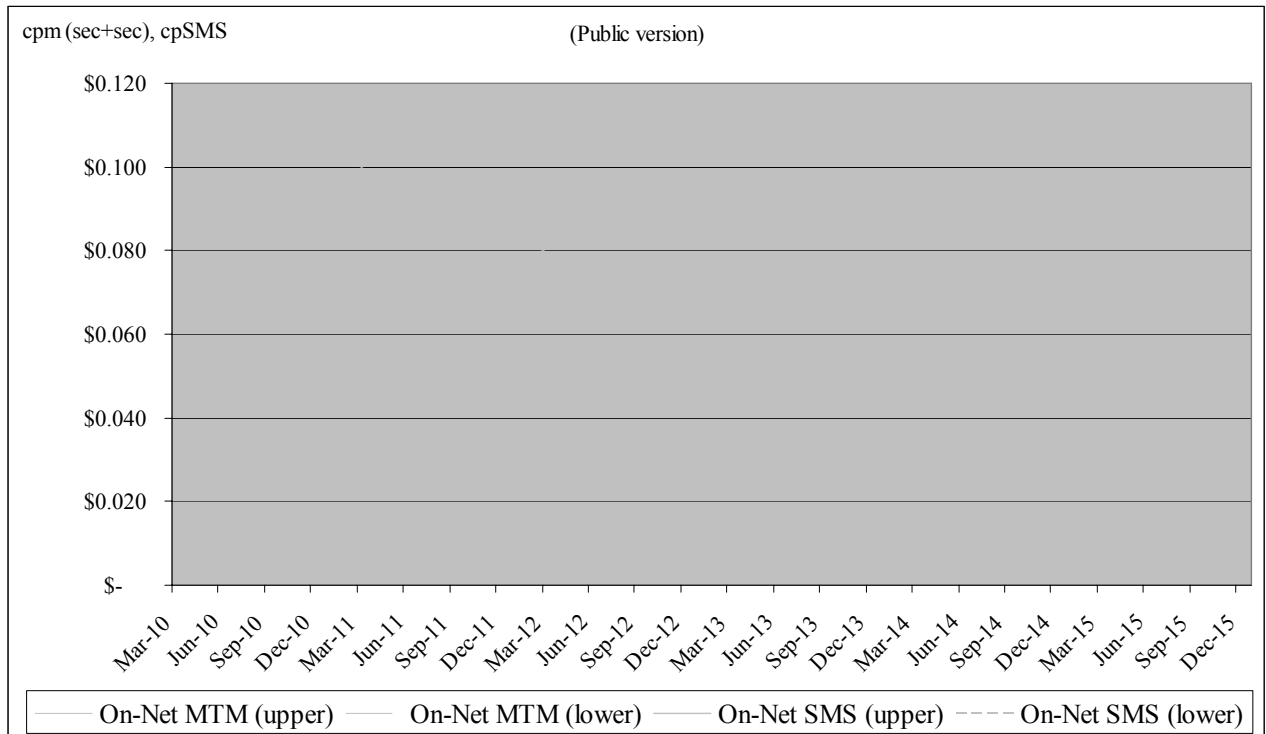
⁴²⁶ Ralph and Lanigan, 16 October 2009, page 4.

⁴²⁷ Ofcom, “Wholesale mobile voice call termination: Preliminary consultation on future regulation”, 20 May 2009, paragraph 6.37.

⁴²⁸ In its submission on the 2 October 2009 undertakings, Vodafone has assumed that off-net SMS prices decline as a result of reductions in the SMS termination rate, while on-net SMS prices remain unaffected. Vodafone submission, 16 October 2009, paragraph 96.

621. However, a reduction in on-net rates to cost would be a substantial reduction. As shown below, the Commission's range of factual cost-based MTRs for 2011 is 4.77cpm to 6.72cpm. Based on 2008 data, the range of on-net termination rates discussed above is [] CRI to [] CRI. To reach 6.72cpm by 2011, on-net rates would have to drop by around [] CRI% per annum, while to reach 4.77cpm by 2011, on-net rates would have to drop by around [] CRI% per annum.
622. In the Draft Report, the Commission used an entry-induced price reduction of 5% p.a. to illustrate the kinds of benefits consumers might enjoy as a result of lower MTRs. This was based on observations of price reductions following entry in a number of overseas markets. For example:
- over the period when Telstra, Optus, and Vodafone were competing in Australia (1993-1999), annual price reductions of around 8% were observed; in the year following the entry, mobile prices dropped by around 15%; and
 - in the UK, mobile telephony prices had fallen by around 10% p.a. in the early 1990s. As the number of mobile networks increased from two to three, the annual price reduction observed was around 20% (1992/93), with a further reduction of around 33% at the time of the entry of the fourth network (1993/94).
623. In the above cases, the incremental price effect resulting from new entry appears to be around 7% in the case of Australia, and between 10% and 20% in the UK.
624. The Commission notes that the above observations relate to movements in mobile prices generally, whereas for the current purposes, the Commission is interested in likely movements in retail on-net prices. Given that the level of on-net retail price discounting in New Zealand appears to be relatively high,⁴²⁹ the Commission considers that the impact of entry in New Zealand could be particularly significant in respect of off-net prices (as in the example discussed earlier at paragraph 582). The impact of entry on what appear to be relatively low retail on-net prices in New Zealand may be less significant. The Commission has therefore concluded that an annual on-net price reduction of 5% is appropriate.
625. Figure 13 summarises the Commission's estimates of the average implied rates at which Telecom and Vodafone terminate their own on-net traffic, based on the rates set out in Table 20 and allowing a 5% annual price reduction.

⁴²⁹ See the earlier discussion at paragraphs 249 to 271.

Figure 13: Implied On-Net Termination Rates for MTM and SMS

626. The Commission has had regard to the rates shown in Figure 13 to inform its evaluation of whether an MTR would allow an efficient entrant to compete in the retail mobile services market, and in particular whether such an entrant would be able to offer prices for off-net services (for which the MTAS is used as an input) that are competitive with the on-net plans of the established mobile operators. A wholesale MTR that lies within the range of implied termination rates for MTM and SMS shown in Figure 13 above should be likely, absent other factors and behaviours by established operators, to enable a small entrant to retail off-net prices that are comparable to the retail on-net prices of the larger mobile operators, and in so doing allow the entrant to compete for subscribers in the retail mobile market.
627. This comparison has been used by the Commission to assist in identifying and addressing the kinds of concerns that the Commission raised in the Draft Report over the ability of a small entrant to compete in the downstream mobile market. Similar concerns over high MTRs combined with on-net discounting have been expressed by other regulatory agencies such as the EC and the ERG.⁴³⁰

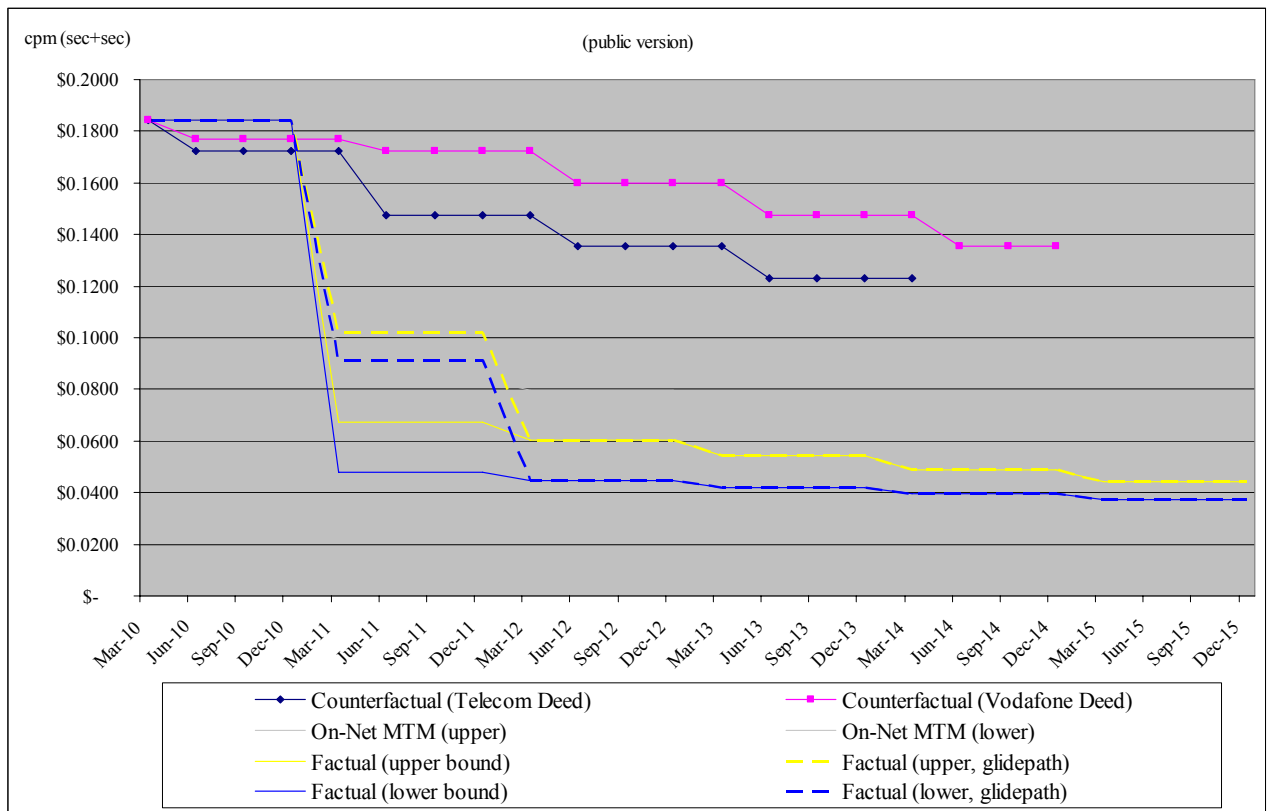
Potential Benefits of Regulation of MTM/SMS MTRs

628. In assessing whether there are grounds for recommending regulation of the MTAS, the Commission has compared the counter-factual MTRs (based on the Deeds and ICAs) with the MTRs that the Commission considers could likely be set under cost-based regulation and the Commission's estimates of the average on-net MTM and SMS termination rates. While the MTRs contained in the Deeds apply to FTM calls, the Commission understands that MTM termination rates have been the same as or similar to FTM termination rates.

⁴³⁰ See for example paragraphs 282 and 283.

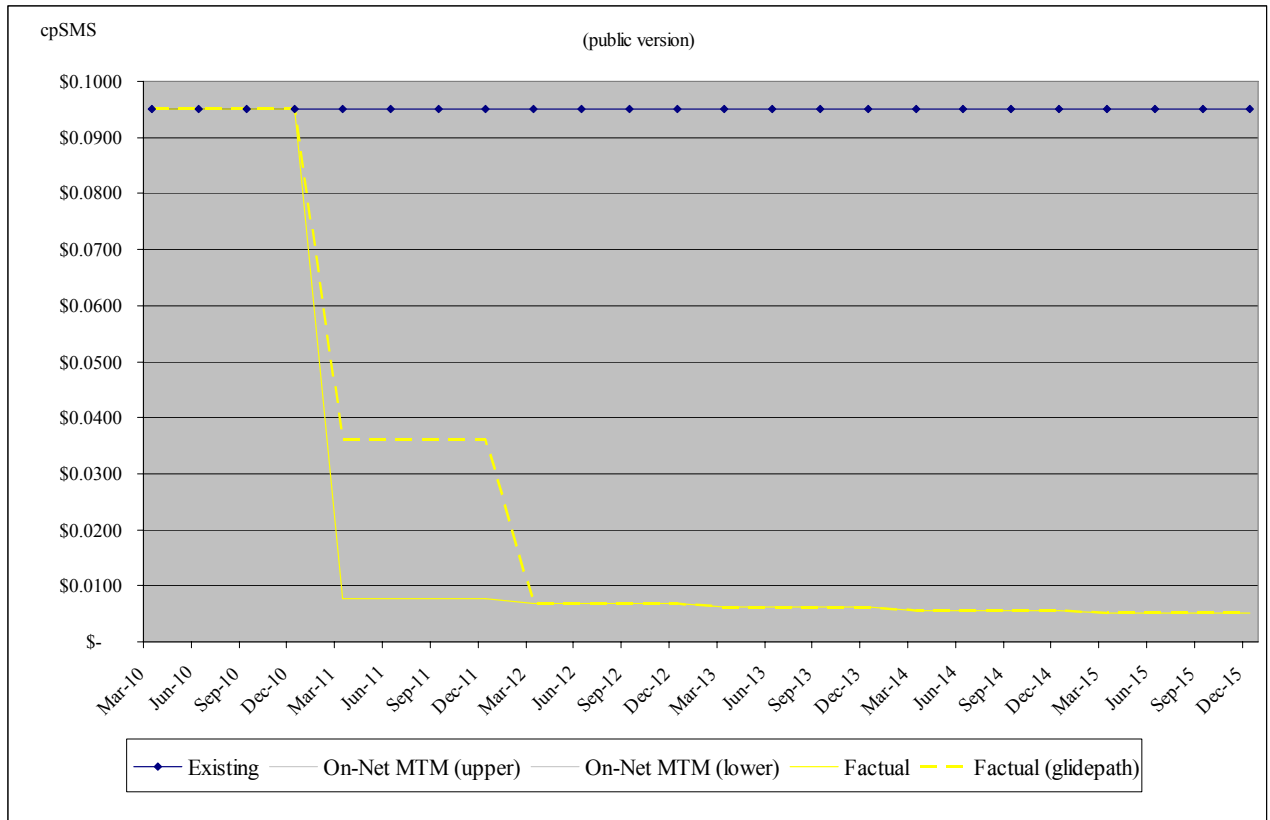
629. In Figure 14, the Commission’s estimates of the implied average on-net MTM termination rates are compared to:
- the counter-factual MTM MTRs that are estimated as being likely to apply in the absence of regulation; and
 - the Commission’s factual MTRs.
630. The average implied on-net MTRs provide an indication of the estimated termination rates that the larger mobile operators implicitly charge themselves for completing an on-net MTM call on their own network.

Figure 14: MTM Termination Rates – Counter-factual, Factual, and Implied On-Net Rates



631. As can be seen from,Figure 14 the counter-factual MTRs based on the Deeds remain significantly above the estimated average on-net rates that the mobile operators implicitly charge themselves to terminate on-net MTM calls and the Commission’s factual MTRs.
632. Figure 15 provides a similar comparison in respect of SMS termination, where the counter-factual MTR is compared to the estimated average implied on-net rates and the Commission’s cost-based factual MTR.

Figure 15: SMS Termination Rates – Counter-factual, Factual, and Implied On-Net Rates



633. As discussed earlier in this section, in order to address the barrier facing a small entrant, an efficient entrant should be able to terminate its traffic on the other networks at a rate that allows the entrant to compete with the existing on-net prices. According to Figure 14 and Figure 15, the wholesale MTRs that are likely to prevail in the absence of regulation exceed this level. Absent regulation, a small entrant will be faced with a wholesale MTR that is considerably in excess of the rates implied by the on-net prices of the two large mobile operators. As a result, the small entrant is likely to be constrained in its ability to compete for subscribers in the mobile market.⁴³¹
634. The Commission has also had regard to the MTRs paid by 2degrees for MTM traffic terminating on Vodafone's network under the commercial interconnection agreement. While the MTRs represent an improvement on the MTRs contained in the Deeds, that agreement is a bilateral agreement, only applying to traffic between 2degrees and Vodafone. In addition, []CAPI. Finally, the Commission notes that the MTRs contained in the commercial interconnection agreement between 2degrees and Vodafone are []CAPI. For example, in 2011 the commercial MTM MTR paid by 2degrees exceeds the upper bound of the Commission's cost estimate by []CAPI%, with this margin increasing to []CAPI% the following year.

⁴³¹ As discussed earlier, high MTRs are likely to have a detrimental impact on a small entrant in the event of a net traffic imbalance from the entrant to the larger mobile operators. Such an imbalance is likely to emerge, given the use of on-net discounting by the larger operators.

635. While the counter-factual MTRs are likely to impair the ability of a small entrant to compete in the mobile market, the Commission's range of likely cost-based MTRs should enable such an entrant to compete with the on-net rates offered by the established mobile operators. In other words, MTRs that better reflect the cost of supplying the MTAS are likely to remove the barrier to efficient entry and expansion that was identified in the earlier competition assessment,⁴³² and in so doing, result in a more competitive downstream mobile market than would be the case under the counter-factual.
636. In the Draft Report, the Commission used a 5% price effect to illustrate the potential benefits from increased competition in the mobile market resulting from cost-based regulation. The Commission noted that an incremental price effect of -5%, resulting from a reduction in the MTRs set out in the Deeds to a level that reflected the likely cost of supplying the MTAS, was reasonable, based on the price reductions that had followed entry in other countries.⁴³³
637. Submissions on behalf of 2degrees indicated that a -5% price effect may be conservative, while submissions from Telecom and Vodafone argued that such an effect merely shows the impact of entry, rather than the impact of regulation. According to the latter submissions, if regulation does not facilitate efficient entry that would occur in any event, the nexus between the resulting price effect and regulation would not exist.
638. However, as discussed earlier, the Commission considers that MTRs that are more aligned with the likely cost of supplying the MTAS will result in increased downstream competition in the mobile market. In the absence of such cost-based MTRs, a small entrant is likely to struggle to compete with low on-net prices, and therefore may not be able to overcome the network effects created by such on-net discounting. As noted by Concept's submission on the Draft Report, it is plausible that the entrant might be forced to exit the market,⁴³⁴ or at best remain constrained. However, with cost-based MTRs, such an entrant should be able to compete with on-net prices,⁴³⁵ and therefore offer attractive retail packages to end-users.
639. NERA's cross-submission on the Draft Report referred to examples of sustained entry and expansion in the face of above-cost MTRs and on-net discounting in other mobile markets.⁴³⁶ NERA's examples included Meteor's entry into the Irish market in 2001, Bouygues Telecom (France, 1996), E-Plus (Germany, 1994), Telefonica O2 (Germany, 1998), Wind (Italy, 1999), Optimus (Portugal, 1998), and Orange (Spain, 1999). According to NERA, these examples demonstrate that new entrants can compete when faced with on-net discounting and high MTRs.
640. However, the above examples provided by NERA relate to entry into mobile markets at a time when mobile penetration levels were substantially lower than current penetration. At low levels of penetration, the number of existing subscribers on the incumbent networks

⁴³² See paragraphs 272 to 289 above.

⁴³³ See paragraph 622 above.

⁴³⁴ Concept cited the example of such occurring in Slovenia.

⁴³⁵ As long as the retail on-net prices are at least cover the cost of supplying retail on-net services. Given the prevalence of on-net traffic, this is likely to be the case.

⁴³⁶ NERA cross-submission, 18 August 2009, pages 3-4 and Appendix A.

(and in particular those on on-net plans) may be less of an issue for an entrant, who will be able to target a larger proportion of the population without a mobile device.

641. In this regard, the Commission notes NERA's own statement in its cross-submission, that entry conditions in numerous other countries – including much lower mobile penetration levels at the time of entry – are not comparable to those in New Zealand today, and that as a result, little weight can be placed on the entry experiences in such countries.⁴³⁷
642. According to the OECD,⁴³⁸ the 1996 mobile penetration level in France was 4.2%; in Germany, mobile penetration in 1994 was 3.0%, and had reached 16.9% by the time of Telefonica O2's entry in 1998. Penetration was higher in the examples of Spain (27.2% in 1999), Portugal (31.4% in 1998), Italy (42.8% in 1999), and Ireland (around 70% in 2001⁴³⁹), although these levels are still considerably lower than the penetration level in New Zealand at the time of 2degrees' entry (109%).⁴⁴⁰
643. Given the significant barrier that would otherwise face the small entrant, and given the concentrated nature and the level of penetration of the mobile market in New Zealand, the Commission has concluded that a price effect of -5% resulting from cost-based MTRs is reasonable.
644. As noted in the Draft Report, such a price effect could result in annual consumer benefits of around \$42 million, with an annual increase in total surplus of around \$11 million. Over five years, the total consumer benefits would be \$169 million, with total surplus increasing by around \$44 million.⁴⁴¹
645. In the Draft Report, the Commission considered the potential for increased productive and dynamic efficiency in the retail mobile market as a result of MTRs that better reflect the cost of supplying the MTAS.⁴⁴² These gains in efficiency, including stronger incentives for ongoing investment and innovation in new mobile technologies, would result from increased competition in the retail mobile market, arising from the reduction in the barrier to entry and expansion. The Commission has concluded that MTRs that reflect the cost of the MTAS will result in additional benefits in the form of increased productive and dynamic efficiency.
646. Having considered submissions received since the Draft Report, the Commission considers that a move from the MTRs that are likely to prevail in the absence of regulation, to MTRs that more closely reflect the likely cost of supplying the MTAS will promote competition in the downstream mobile market, and result in significant long-term benefits to end-users.

Potential Detriments of Regulation of Mobile-to-Mobile Termination Rates

647. In the Draft Report, the Commission considered the potential for a waterbed effect to operate in relation to FTM termination revenues. The Commission considered that any

⁴³⁷ *ibid*, page 8.

⁴³⁸ OECD, "Cellular Mobile Pricing Structures and Trends", 16 May 2000, Table 4.

⁴³⁹ ComReg, "Quarterly Key Data December 2003", 03/144b, Figure 2.2.1.

⁴⁴⁰ See paragraph 188 above.

⁴⁴¹ Net present values (2009) of annual benefits over 2011-2015, based on a 6% discount rate.

⁴⁴² Draft Report, paragraphs 820 to 826.

incremental effect arising from reductions in MTM termination rates is unlikely to be significant.

648. The effect of reducing MTM termination rates was discussed at the MTAS Conference, where Covec accepted that a reduction in the MTM termination rate to a level that reflected the cost of terminating MTM calls would not reduce the intensity of competition or lead to higher mobile prices.⁴⁴³
649. During the MTAS Conference, the Commission referred to the position of the larger mobile operators that a reduction in MTM termination rates was likely to have a largely neutral effect on cashflows. This is because such a reduction in MTM termination rates would lower both wholesale revenues earned on incoming MTM traffic, and wholesale costs incurred on outgoing MTM traffic. As a result, the Commission suggested at the MTAS Conference that a reduction in MTM termination rates would result in no incremental waterbed effect, as there would be no need to recover anything through higher mobile prices.⁴⁴⁴
650. In response, Covec agreed that it would not challenge that view, and that if any MTM waterbed effect does exist, it would not be very large.⁴⁴⁵
651. The Commission therefore considers that any reduction in MTM MTRs is unlikely to result in an incremental waterbed effect.
652. The Commission has taken into account the likely costs associated with regulation of MTM and SMS termination rates. These costs would be incurred by the Commission and interested parties in respect of FTM termination rates, with little or no incremental regulatory costs for MTM and SMS. These costs are discussed at paragraphs 765 and 766 below.

Potential Impact of Regulation of Fixed-to-Mobile Termination Rates

Potential Benefits of Regulation of Fixed-to-Mobile Termination Rates

653. A summary of the Commission's preliminary analysis contained in the Draft Report of the potential benefits from cost-based regulation of FTM termination rates is set out in Appendix 5. Submissions and cross-submissions on the Draft Report on this matter are also summarised in Appendix 5.
654. Much of the discussion in the submissions related to the extent to which cost-based MTRs would promote competition in the relevant downstream retail market, and whether the reductions in MTRs would be passed through to end-users.
655. In addition, Telecom commented on the Commission's use of an FTM demand elasticity of -0.60.

⁴⁴³ MTAS Conference transcript, page 40.

⁴⁴⁴ *ibid*, page 42.

⁴⁴⁵ *ibid*.

FTM pass-through

656. In the Draft Report, the Commission assumed that 88% of the reduction in MTRs under the counter-factual would be passed through into retail FTM prices.⁴⁴⁶ Under the factual, the Commission allowed the rate of FTM pass-through to increase over time, from 75% in 2008 to 100% by 2015, to reflect the pro-competitive effect of cost-based MTRs.
657. The MTAS is a necessary input that is used to supply retail call services that terminate on a mobile network. The Commission believes that cost-based input prices will contribute to competitive and efficient outcomes for the long-term benefit of end-users. As noted in paragraphs 137 to 139 above, parties have generally agreed with the Commission that TSLRIC is the appropriate basis on which to set MTRs, and that doing so will promote competition and efficiency.
658. A cost-based price for the MTAS is likely to result in more efficient outcomes in the downstream markets, including the market in which FTM calls are supplied. Cost-based MTRs will allow fixed-only operators to compete more vigorously with integrated fixed/mobile operators in the supply of FTM calls. Fixed-only operators incur the wholesale MTR in respect of all of their FTM calls (i.e. all calls are off-net), while integrated fixed/mobile operators only incur the wholesale MTR in respect of some of their FTM calls (off-net) and not others (on-net). As a result, high MTRs are likely to constrain fixed-only operators in supplying FTM calls, especially where the MTR exceeds retail on-net FTM prices. The Commission referred in the Draft Report to evidence of this occurring, for example with Vodafone offering retail FTM calls from its fixed-line customers to Vodafone mobile subscribers for 13 cpm. This retail price is lower than the wholesale MTR of 15cpm in the Vodafone Deed.⁴⁴⁷
659. Where FTM calls are supplied within a bundle containing other retail services, it will be more difficult to accurately quantify the impact of cost-based MTRs on retail prices, than where FTM calls are supplied on a standalone basis. This is in part due to the complexity of determining relevant measures of retail prices, especially where downstream competition takes place across a diverse range of service bundles.
660. For the purposes of quantifying the potential impact of cost-based MTRs for this investigation, the Commission has used data supplied by fixed-line operators to derive average retail FTM prices. However, as noted in the Draft Report, and as evidenced by submissions on the Draft Report, end-users are likely to benefit from cost-based MTRs in a number of ways, such as through lower retail FTM prices but also through lower prices for other services, and improved service quality.⁴⁴⁸
661. Vodafone has submitted that cost-based regulation of MTRs is unlikely to stimulate the level of competition in the downstream market required to achieve the full pass-through envisaged in the Draft Report. Vodafone noted that FTM margins had been increasing over the period prior to the Deeds, and that even according to the Commission's analysis of the impact of regulation, such margins are expected to increase further.

⁴⁴⁶ The 88% took account of the commitment in Vodafone's undertaking to pass 100% of the MTR reduction through into retail prices. In the absence of a similar commitment in Telecom's undertaking, the Commission assumed a pass-through rate of 75% in relation to Telecom's MTRs.

⁴⁴⁷ Draft Report, paragraphs 690 to 693.

⁴⁴⁸ Draft Report, paragraphs 673 to 675.

662. The increase in the margin between the retail FTM price and the wholesale MTR is a consequence of the retail price declining by less than the MTR (i.e. less than full pass-through). As noted by Covec,⁴⁴⁹ much of the increase in this margin appears to have occurred in the period between 1998 and 2001, when the margin increased from 5.49cpm to 15.35cpm. Since 2001, the margin has gradually declined to 14cpm by 2007.
663. However, as noted by a number of suppliers of fixed-line services, FTM calls have been increasingly offered as part of a bundle of services. While reductions in MTRs have resulted in lower retail FTM prices, a focus only on retail FTM prices will understate the ways in which end-users have benefited from lower MTRs. Both TelstraClear and CallPlus stated that they have had to pass reductions in MTRs through into retail offers in order to be able to offer value to customers and remain competitive.⁴⁵⁰
664. The Commission has also noted that end-users are likely to have benefited from lower MTRs in a number of ways other than lower FTM prices, such as lower prices for other services. For example, in the Draft Report, the Commission observed that average retail toll call prices had declined by around 35% between 2000 and 2008, and that it is likely that some of the reduction in MTRs had contributed to this.⁴⁵¹
665. Retail service bundles often include other services, in addition to FTM and toll calls. Vodafone, for example, has itself acknowledged that retail FTM services are being increasingly supplied in conjunction with not only toll services, but also with other services such as broadband.⁴⁵²
666. For example, Telecom's Total Home plan includes broadband, landline, toll and FTM calling services. Telecom also offers customers a \$10 discount off its broadband plans if calling services are also purchased from Telecom. Other competitors offer discounted broadband prices where calls are also purchased.⁴⁵³ Such discounted prices for bundles that include FTM calls are consistent with the views expressed by fixed-line competitors that reductions in MTRs have been passed through to end-users in ways additional to reductions in standalone FTM prices.
667. The margin increase identified by Covec is therefore likely to overstate the extent to which fixed-line operators have retained historic reductions in MTRs, and understate the way in which consumers are likely to have benefited from lower MTRs.
668. The Commission also has a number of concerns about Covec's estimation of the level of pass-through in New Zealand. As noted in Appendix 5, Covec used a regression-based approach in an attempt to isolate the impact of changes in MTRs on retail FTM prices. Covec did this by estimating the relationship between changes in retail FTM prices, changes in MTRs, and changes in other exogenous factors that may influence retail FTM prices. Covec estimated that between 24% and 57% (with an average of 41%) of the reduction in MTRs had been passed through into retail FTM prices.

⁴⁴⁹ Covec submission, 27 July 2009, Figure 2. This figure is based on data from the Commission's Draft Report.

⁴⁵⁰ MTAS Conference transcript, pages 185-187.

⁴⁵¹ Draft Report, paragraph 674.

⁴⁵² Vodafone submission, 28 July 2009, paragraph 186.

⁴⁵³ See for example, Orcon's Purple broadband plan. According to Orcon's website, the monthly retail price of this plan is \$39.95, or \$34.95 where the customer takes toll call services from Orcon (with rates quoted for national toll and FTM calls).

669. The Commission's main concerns with Covec's approach to FTM pass-through are set out below:

- as noted above, changes in MTRs are likely to be passed through to end-users in a number of ways, rather than solely through changes in retail FTM prices;
- there are a relatively small number of observations upon which to conduct a formal regression analysis, suggesting that the resulting estimates should be treated with some caution;
- Covec finds that there is no statistically significant relationship between changes in MTRs and changes in FTM prices, and yet bases its proposed 41% on these results; and
- Covec includes a constant term (α) to capture exogenous factors, other than the MTR, that nevertheless influence retail FTM prices. However, in the absence of data on how these other factors have been moving over time, it is not clear what weight can be placed on Covec's analysis. For example, in commenting on the determinants of retail FTM prices (and in referring to Covec's estimated 41%), Vodafone noted that changes in the cost of fixed origination, transport, and retailing over the period between 1997 and 2006 should also be controlled for.⁴⁵⁴ While the Commission agrees in principle that such factors should ideally be taken into account, these cost components have been relatively small in relation to the costs that fixed-line operators have historically incurred when purchasing mobile termination services. For example, in the Draft Report, the Commission used a fixed origination cost of 1cpm (based on the Commission's previous fixed PSTN interconnection determination), and an average transport cost of 1.2cpm (based on the Commission's previous MTR investigation).⁴⁵⁵ However, for most of the period considered by Covec, MTRs have been well in excess of 20cpm.⁴⁵⁶ Even the average MTR in 2007 (20.23cpm) represented more than 90% of the network-related costs of delivering an FTM call. It is therefore difficult to conceive that changes in these other cost components have had as significant an impact as that claimed by Covec.

670. In addition, the Commission notes that Covec's lower bound estimate of 24% is based on a regression model specification that assumes that the level of pass-through of MTR reductions into retail prices is constant over time.⁴⁵⁷ Covec also considered alternative model specifications, including one where the level of pass-through changes as the MTR changes. Covec dismissed this model on the basis that the theoretical link between the MTR and the rate of pass-through is less clear.⁴⁵⁸ However, the Commission considers that the level of MTR is likely to influence the competitiveness of the downstream market, with above-cost MTRs limiting the ability of fixed-only operators to compete. As noted earlier, Vodafone has also agreed that a cost-based MTR will best promote competition in all relevant markets. Given that a more competitive market will result in greater levels of cost

⁴⁵⁴ Vodafone submission, 28 July 2009, paragraph 177.

⁴⁵⁵ Commerce Commission draft MTAS report, paragraph 726 and Table 44.

⁴⁵⁶ *ibid*, Table 40.

⁴⁵⁷ Covec submission, 27 July 2009, paragraph 99 and Table 8.

⁴⁵⁸ *ibid*, paragraph 102.

pass-through, a cost-based MTR is likely to result in higher levels of pass-through, than where MTRs are set in excess of cost.

671. The Commission therefore considers that a lower MTR can be expected to result in higher levels of pass-through.
672. Table 21 summarises the results of Covec's pass-through analysis.

Table 21: Summary of Covec estimates of FTM pass-through

| Covec Model | Lower Bound | Upper Bound | Average |
|--|-------------|-------------|---------|
| Model 2a (pass-through constant over time) | 24% | 57% | 41% |
| Model 2b (pass-through varies over time) | 5% | 31% | 18% |
| Model 2c (pass-through varies with MTR) | 62% | 100% | 81% |

673. Using Covec's Model 2c, where the level of pass-through is allowed to vary with the level of MTR, the estimated pass-through rate increases considerably, with Covec's lower-bound estimate increasing from 24% to 62%, and the upper bound estimate increasing from 57% to 100%. The average historic pass-through rate over the period from 1997 to 2007 increases from 41% to 81%. The average level of pass-through of 81% estimated by Covec is similar to the Commission's estimate of 75% over the same period.
674. In relation to Vodafone's observation that smaller suppliers of FTM calls had passed through only 30% of MTR reductions between 2006 and 2008, the Commission again notes its observations and comments⁴⁵⁹ on the way in which MTR reductions get passed through to end-users, and in particular the comments made by operators such as CallPlus and Kordia at the Commission conference.⁴⁶⁰ In addition, Vodafone's observations apply to a short period. The Commission's has concluded that the long-term average level of pass-through is likely to be a more robust indicator than a measurement over relatively short periods.⁴⁶¹
675. The Commission also notes the comments made by WIK in relation to the issue of FTM pass-through. WIK notes that for the purposes of assessing the potential benefits of cost-based regulation of MTRs, the Commission has assumed that pass-through levels increase from the historic level (75%) to reach full pass-through by 2015. According to WIK,⁴⁶²

'Given the level of FTM prices in New Zealand, this assumption might even be too conservative. In our view, the Commission should not exclude the scenario of a decrease in price levels going beyond the decrease in the termination rate. If competition in the fixed-line market increases there is no reason to assume that the currently excessive margins earned with FTM calls will be unaffected. Under the 100% pass-through assumption for 2015 the price of a retail FTM call is calculated by the Commission at around 20 cpm compared to a cost of supplying a retail FTM minute of less than 10 cpm (including the MTR). The net margin for a FTM minute of calls therefore amounts to 100%. It is unrealistic to assume that such excessive margins remain unchanged if competition increases.'

⁴⁵⁹ See paragraphs 662 to 666.

⁴⁶⁰ See for example, Conference transcript, pages 186 and 187.

⁴⁶¹ Draft Report, paragraph 662.

⁴⁶² WIK, "Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009", February 2010, page 35.

676. Furthermore, WIK supported the view that lower MTRs will increase competition in the downstream fixed-line market.⁴⁶³
- ‘There is reason to assume that lowering MTRs would increase the competitive position of a fixed-line only competitor. Its costs for FTM calls will decrease while the costs of the integrated fixed-line incumbent will be less affected. The competitor(s) has(ve) clear incentives to pass-through this decrease in costs (or even more than that) to their customers to improve their competitive position. The intensified competition in the fixed market and the increased competition in the mobile market will induce pressure not only on the level of pass-through but also on the margins of FTM calls. This intensified competitive pressure can and in our view will result in decreases of prices that relative to the decrease in mobile termination rates may amount to more than 100%.’
677. Vodafone submitted that substantial barriers to entry and expansion remain in the fixed-line market, and that in the presence of these barriers, MTR regulation is unlikely to increase competition in this market. However, the Commission notes that the availability of a number of new regulated wholesale access products, such as the UBA and UCLL services, are likely to have had an increasingly pro-competitive impact in the downstream market.
678. In addition, as noted by WIK and fixed-line only operators,⁴⁶⁴ wholesale MTRs that more closely reflect the cost of supplying the MTAS are likely to increase the ability of existing and potential non-integrated competitors to compete in the downstream market. These factors in turn should result in conditions that are conducive to higher levels of pass-through as MTRs are reduced towards cost.
679. The ACCC has recently commented on the level of FTM pass-through observed in Australia, noting its disappointment with the reductions in retail FTM prices, given the significant reductions in the wholesale MTR since 2004. The ACCC found that the trend in Telstra’s average residential FTM price indicated a lower level of FTM pass-through, with an increase in retail prices actually observed since 2007.⁴⁶⁵
680. For the current MTAS Investigation, the Commission has examined industry-wide average retail FTM prices in New Zealand, based on data supplied by Telecom and its fixed-line competitors. As noted in the Draft Report,⁴⁶⁶ this data indicated that the average retail FTM price in New Zealand has continued to decline since 1997, and that the level of FTM pass-through, while varying on a year-by-year basis, has been gradually increasing over time, even when the period of the Deeds is excluded. The Commission considers that the New Zealand evidence in respect of changes in wholesale MTRs and changes in retail FTM prices reveals a different situation in relation to FTM pass-through in New Zealand compared to that in Australia.
681. Covec also submitted that the Commission’s application of the pass-through level in any year is unclear and inflates the actual level of pass-through. This is because in the draft

⁴⁶³ *ibid*, pages 35 to 36.

⁴⁶⁴ See for example TelstraClear submission, 28 July 2009, paragraph (vi); and CallPlus, conference transcript, page 186.

⁴⁶⁵ The ACCC has recently published a report by Analysys-Mason on regulatory approaches to FTM pass-through. In addition to referring to the degree of pass-through observed in Australia, Analysys-Mason report the changes in wholesale MTRs and FTM retention in ten European countries, and comment on the regulatory treatment of FTM pass-through in those jurisdictions. See Analysys-Mason, “Regulatory treatment of fixed-to-mobile passthrough”, October 2009.

⁴⁶⁶ Commerce Commission draft MTAS report, Table 40.

model, the change in FTM price in any one year is derived not only from the change in MTR for that year (multiplied by the pass-through level), but also took into account incremental changes in MTRs and pass-through levels in previous years. The Commission notes that this was based on the pass-through mechanism used in the previous investigation, which in turn reflected the profile of factual MTRs. For the current investigation, the Commission considers that it is appropriate to simplify the pass-through mechanism in this Final Report, such that the change in FTM price in a particular year is based on the change in MTR for that year, multiplied by the pass-through level for that year. This has the effect of slightly lowering the net benefits from regulation that were evidenced in the Draft Report.

682. In summary, the Commission has concluded that the FTM pass-through levels used in the Draft Report are reasonable assumptions for the purposes of estimating the potential consumer gains resulting from cost-based regulation of FTM MTRs, and may even be conservative for the reasons given by WIK.⁴⁶⁷

FTM demand elasticity

683. Telecom's submission on the Draft Report commented on the Commission's use of an FTM demand elasticity of -0.60. This figure was based on the Commission's previous investigation into MTRs, in which the Commission had regard to a range of elasticity estimates that had been submitted to the UK Competition Commission and the ACCC.⁴⁶⁸
684. According to Telecom, a lower FTM demand elasticity of -0.10 would be more consistent with the Commission's data.⁴⁶⁹
685. It is not clear how Telecom derived an estimate of -0.10, or how Telecom's estimate is more consistent with the Commission's data. The Commission has examined the changes in actual FTM volumes and average FTM prices in New Zealand over the period from 1998 to 2008 in order to gauge whether the elasticity estimate of -0.60 might be too high or too low.
686. Over this period, the average retail FTM price declined from 52.5cpm to 30.7cpm, a reduction of -42%. Based on industry data collected as part of the current and previous MTR investigations, the corresponding increase in FTM minutes was 185%.
687. These figures suggest an unadjusted FTM demand elasticity of -4.38.⁴⁷⁰ However, the demand for FTM calls is a function not only of the FTM price, but also of the number of mobile subscribers. As a result, much of the increase in FTM minutes over the period between 1998 and 2008 is likely to have been driven by increasing mobile subscriptions,⁴⁷¹ rather than by lower FTM prices.

⁴⁶⁷ The Commission has made an amendment to the application of the pass-through under the factual, such that the annual change in FTM price is based on the change in the MTR for that year, multiplied by the pass-through level for that year.

⁴⁶⁸ Draft Report, paragraph 710.

⁴⁶⁹ Telecom submission, 28 July 2009, paragraph 110.

⁴⁷⁰ Based on $-(185\%/42\%)$.

⁴⁷¹ According to the OECD, New Zealand's mobile subscription level increased from 1.25 million subscribers in 1998, to 4.24 million subscribers in 2007. OECD, "OECD Communications Outlook 2009", Table 4.11.

688. During the previous investigation, it was submitted by Marsden Jacobs Associates (on behalf of TelstraClear) that around 80% of the growth in FTM minutes between 1997 and 2004 was due to *shifts* in the FTM demand curve (reflecting increasing mobile subscription levels), and that only 20% was due to a price effect *along* the FTM demand curve.⁴⁷²
689. Using the same 20% estimate of the price effect for the period 1998 to 2008, the unadjusted elasticity estimate of -4.38 is reduced to -0.88. This suggests that the demand for FTM services may be more elastic than the -0.60 used by the Commission in the Draft Report, rather than less elastic as suggested by Telecom. The Commission notes that more elastic FTM demand will result in greater benefits to end-users from cost-based MTRs.
690. For the purposes of this investigation, the Commission has retained the use of an FTM demand elasticity of -0.60.

Potential Benefits of Regulation of FTM MTRs

691. The counter-factual and factual FTM MTRs used in the Commission's analysis to determine whether there are grounds for recommending regulation are summarised in Table 22.

Table 22: Counter-factual and Factual FTM Termination Rates (NZcpm, second+second)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------------------|-------|-------|-------|-------|-------|-------|
| Counter-factual | 17.72 | 16.42 | 15.14 | 13.91 | 13.11 | 12.95 |
| Upper bound factual | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| Upper bound factual* | 18.45 | 10.18 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual* | 18.45 | 9.14 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |

* With a one-year regulatory glide-path.

692. The MTRs contained in the Deeds are significantly above the Commission's current estimates of the forward-looking costs of supplying the MTAS over the period from 2011 to 2015. For example, in 2011, the MTR from the Deed (16.42cpm) is between 144% and 244% above the likely cost of terminating FTM calls.⁴⁷³ By 2015, the Deed MTR is between 193% and 248% above cost.
693. In addition to being significantly above cost, the MTRs contained in the Deeds are close to and in some cases exceed the retail FTM prices offered by Telecom and Vodafone. In the Draft Report,⁴⁷⁴ the Commission referred to the example of Vodafone's Business Tolls Plus plan, where the retail price for an FTM call from a Vodafone fixed-line customer to a Vodafone mobile customer is 13 cpm, which is lower than the current MTR of 15 cpm

⁴⁷² Commerce Commission, "Schedule 3 investigation into regulation of mobile termination: Final Report", 9 June 2005, paragraph 487.

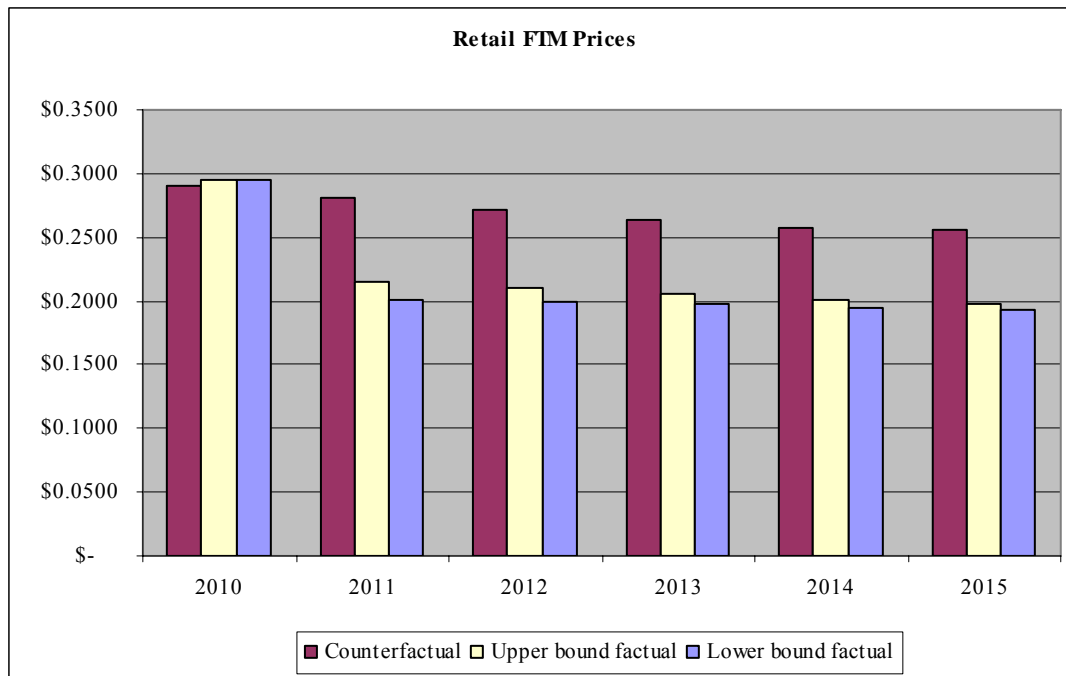
⁴⁷³ Based on an assessment where a cost-based MTR is introduced from 1 January 2011 ie without a regulatory glide-path. Even if a cost-based MTR is introduced gradually under regulation through a one-year glide-path from 1 January 2011 to 1 January 2012, the 2011 MTR in the Deed is between 61% and 83% above the factual MTR in 2011.

⁴⁷⁴ Draft Report, paragraph 691.

contained in the Vodafone Deed. As the Commission noted in the Draft Report, once the additional costs of supplying an FTM call are included (such as call origination), Vodafone's retail FTM price for business customers appears to be even lower, relative to the costs that would be incurred by a competitor in supplying such a call.

694. As discussed above, the Commission has concluded that the pass-through and elasticity assumptions used in the Draft Report are appropriate for the purposes of quantifying the likely potential benefits of moving to a cost-based price for the MTAS.⁴⁷⁵
695. The retail FTM prices that result from the above MTRs and the pass-through profiles used in the Draft Report are summarised in Figure 16.⁴⁷⁶ In 2010, the retail price under the factual of regulation is slightly higher (due to the higher MTR), than under the counterfactual, where the MTRs continue to decline throughout 2010 as per the Deeds. In 2011, the MTR under the factual is reduced as a result of cost-based regulation, with the reductions resulting in lower retail FTM prices. Over the period from 2011 to 2015, cost-based regulation of MTRs is expected to result in retail FTM price reductions of between 22% and 28%, compared to the retail prices where MTRs are set according to the Deeds.

Figure 16: Retail FTM Prices



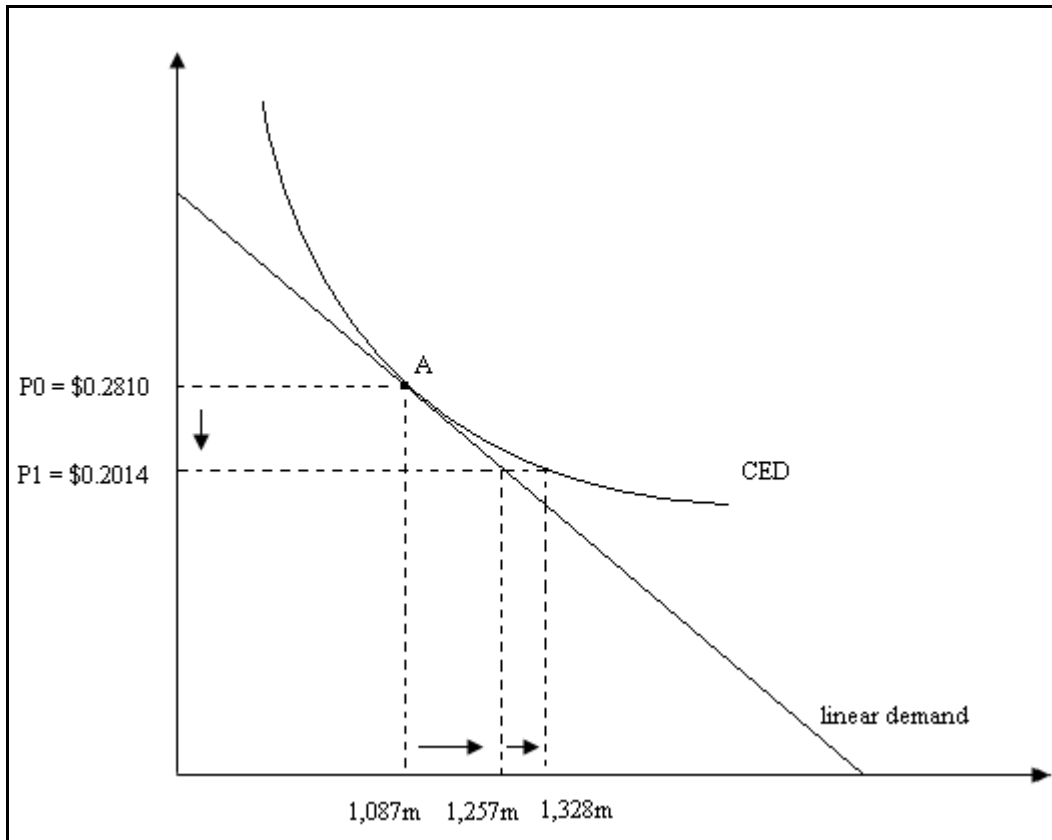
696. The above reductions in retail FTM prices will lead to increased demand for FTM calls, based on an FTM demand elasticity.

⁴⁷⁵ Subject to the amendment noted in paragraph 681 above.

⁴⁷⁶ The factual FTM prices shown in Figure 16 are based on the factual scenario with no regulatory glide-path. If a one-year regulatory glide-path is allowed, the factual FTM prices will be higher in 2011 than those shown in Figure 16.

697. Figure 17 summarises the estimated reduction in FTM price and the consequent increase in FTM demand for 2011.⁴⁷⁷ The retail FTM price falls from 28.1 cpm to 20.1 cpm. The Commission's quantitative model estimates the resulting changes in demand using both linear demand and CED functions. With a linear demand function, FTM demand increases from 1,087 million minutes, to 1,257 million minutes in 2011. With the CED function, demand increases further, to 1,328 million minutes in 2011.

Figure 17: Changes in Retail FTM Prices and Volumes (2011)



698. Using a linear demand function, the sensitivity of demand to changes in price varies along the demand curve. At high prices and low quantities, demand is relatively sensitive to changes in price (i.e. elastic). In moving down the demand curve, demand becomes less sensitive to price changes (i.e. more inelastic).
699. With a CED function, the price elasticity of demand remains constant along the demand curve.
700. The implications of the different demand assumptions depend on whether a price reduction or a price increase is being modelled. For a given price reduction, such as where the retail

⁴⁷⁷ Figure 17 shows the reduction in retail FTM price under the lower bound factual, again with no regulatory glide-path, where the cost-based MTR for 2011 is 4.77cpm (i.e. using the Commission's lower bound MTAS cost).

FTM price falls as a result of lower MTRs, the increase in demand for the service whose price has fallen will be greater under the CED function, as shown in Figure 17.⁴⁷⁸

701. The increase in consumer surplus and total surplus resulting from lower prices will therefore tend to be greater under the CED function, as demand becomes relatively more sensitive.⁴⁷⁹
702. For a price increase, the contraction in demand for the service whose price has increased will be lower under the CED.⁴⁸⁰ For example, to the extent that there is a ‘waterbed effect’ from lower MTRs, mobile subscription prices may be higher than they would otherwise have been, resulting in lower mobile subscription levels. This in turn would lead to an inward shift in demand in the related market for calls to mobile subscribers (FTM and MTM). The resulting loss in FTM and MTM consumer surplus available to the remaining fixed and mobile subscribers will tend to be greater under CED. The net effect on the CED and linear results will therefore depend on the relative magnitudes of the higher benefits and higher detriments under CED.
703. While the Commission has modelled the impact of regulating the FTM MTR using both linear and CED functions, the Commission’s view is that for large price changes, the CED function is likely to better represent the demand response. However, the Commission also notes that a CED function tends to have greater informational requirements than a linear demand function.⁴⁸¹
704. Table 23 summarises the estimated gain in consumer and total surplus resulting from cost-based regulation of FTM MTRs over the period 2010-2015, when compared to a counter-factual based on the Deeds.

Table 23: Increase in FTM Consumer and Total Surplus 2010-2015 (2009 net present value)

| | no regulatory glide-path | | one-year regulatory glide-path | |
|---------------------|--------------------------|---------------|--------------------------------|---------------|
| | consumer surplus | total surplus | consumer surplus | total surplus |
| Upper bound factual | | | | |
| - linear demand | \$280 million | \$86 million | \$260 million | \$90 million |
| - CED | \$284 million | \$117 million | \$262 million | \$108 million |
| Lower bound factual | | | | |
| - linear demand | \$322 million | \$99 million | \$297 million | \$106 million |
| - CED | \$330 million | \$144 million | \$301 million | \$132 million |

⁴⁷⁸ At point A in Figure 17, the linear and CED functions intersect, and the demand elasticity of both curves will be the same. As the price is decreased, demand becomes less elastic along the linear demand curve, while the demand elasticity remains constant under the CED. As a result, to the right of point A, demand is less elastic with the linear function than the CED function, leading to a smaller increase in demand as shown.

⁴⁷⁹ This can be seen from Table 23 below.

⁴⁸⁰ This is due to demand becoming relatively more elastic under the linear demand function compared to the CED to the left of point A in Figure 17.

⁴⁸¹ This was noted by the Commission in its previous MTR investigation. For example, see Commission “Schedule 3 Investigation into Regulation of Mobile Termination Final Report”, 9 June 2005, paragraph 600.

705. The Commission has estimated that a reduction in FTM MTRs from the levels contained in the existing Deeds to a level that reflects the likely costs of the MTAS would result in a substantial increase in consumer surplus and total surplus over the period between 2010 and 2015.
706. In addition to the above benefits from lower prices and increased demand for FTM services, the Commission referred in the Draft Report to a range of additional benefits resulting from MTRs that more closely reflect the cost of the MTAS.⁴⁸² These include increased productive and dynamic efficiency arising from more competitive downstream markets. The Commission has concluded that MTRs that better reflect the cost of supplying the MTAS will result in additional benefits in the form of increased productive and dynamic efficiency.

Potential Detriments of Regulation of Fixed-to-Mobile Termination Rates

707. In this section, the Commission sets out its views on the potential detriments of regulation of FTM termination rates. These views take into account the submissions and cross-submissions by interested parties on the possible rebalancing (**waterbed effect**) of retail mobile prices in response to reductions in termination revenues earned by the mobile operators on FTM calls. Further detail on these submissions is provided in Appendix 5.
708. A number of the arguments raised in submissions relate to the way in which the draft FTM model used by the Commission calculated the impact of a given waterbed effect. These issues, relating to the structure of the FTM model, include the impact of higher FTM volumes and the recognition of a mobile subscription elasticity effect on the recovery of lost FTM termination revenues.
709. Other arguments relate to the assumption made with respect to the strength of the waterbed effect (i.e. the proportion of FTM termination revenues that are recovered through rebalanced retail mobile prices).
710. The Commission also comments in this section on a number of other parameter values that are used in the assessment of the potential detriments arising from lower subscription levels under the scenario of cost-based regulation of the MTAS.

FTM Volumes

711. A number of parties have noted that cost-based regulation of MTRs will lead to lower retail FTM prices, and higher FTM volumes. The increase in FTM volumes will offset some of the reduction in FTM termination revenues experienced by the mobile operators as a result of regulation.
712. For example, in its cross-submission on the Draft Report, Concept noted that:⁴⁸³

‘... the decline in the FTM price will be at least somewhat offset by increases in FTM call volumes ... reducing the extent to which the waterbed effect applies.’

⁴⁸² See Draft Report, paragraphs 731 to 748.

⁴⁸³ Concept cross-submission, 18 August 2009, page 31.

713. Covec also recognise this offsetting effect in calculating the lost termination revenue, as they apply the factual MTR to the factual FTM quantity.⁴⁸⁴
714. The Commission accepts that this is a reasonable assumption and has therefore amended the FTM model to capture the likely higher FTM volumes under the factual of regulation. The calculation of the loss in FTM termination revenues as a result of regulation is now given by the following:⁴⁸⁵

$$\Delta \text{ FTM termination revenues} = (\text{MTR}_{\text{factual}} \times \text{FTM minutes}_{\text{factual}}) - (\text{MTR}_{\text{counter-factual}} \times \text{FTM minutes}_{\text{counter-factual}})$$

715. The resulting loss in FTM termination revenues is reduced under this amended formula.

Mobile subscription elasticity

716. In its submission on the Draft Report, Covec noted that the Commission had ignored the likely reduction in mobile subscription levels in the event that mobile subscription prices were higher as a result of regulation.⁴⁸⁶ As a result, the actual level of recovery of lost FTM termination revenues in the Commission model would be less than the targeted level of recovery.
717. The Commission accepts that for a given elasticity of demand for subscription services, an increase in mobile subscription prices is expected to reduce the level of mobile subscription. The lower level of mobile subscribers over which to recover lost FTM termination revenues will require a greater price increase over the remaining subscribers. The Commission has therefore amended the FTM model to allow for such an effect, along the lines proposed by Covec.⁴⁸⁷

Strength of the “Waterbed effect”

718. In the Draft Report, the Commission considered a range of possible waterbed assumptions, ranging from 0% (in which case none of the lost FTM termination revenues are recovered elsewhere) through to 50% (where half of the lost FTM termination revenues are recovered through higher retail mobile prices).
719. In response, Vodafone and Telecom (and their respective advisors) argued that the waterbed effect was likely to be more complex than the way in which the Commission had modelled such an effect.⁴⁸⁸ Telecom argued that the actual range of price and quantity changes resulting from lower MTRs will be difficult to predict, while Vodafone noted that mobile operators might respond in a number of different ways, including increasing retail mobile prices (or reducing such prices more slowly), introducing more stringent top-up conditions and/or shortening credit expiry timeframes for prepay customers, and reducing handset subsidies.

⁴⁸⁴ Covec submission, 27 July 2009, paragraph 147.

⁴⁸⁵ This corresponds to the formula set out in paragraph 147 of Covec’s submission, 27 July 2009.

⁴⁸⁶ Covec’s submission, 27 July 2009, paragraph 18.

⁴⁸⁷ This involves solving the increase in the mobile subscription price required in order to recover the targeted level of recovery. See for example, Covec submission, 27 July 2009, paragraph 153.

⁴⁸⁸ See for example, Vodafone submission, 28 July 2009, paragraph 198; Telecom submission, 28 July 2009, paragraphs 104, 106.

720. Both Vodafone and Telecom have also argued that to the extent that cost-based MTR regulation increases competition in the downstream mobile market, as the Commission believes it will, the magnitude of the waterbed effect must be allowed to increase over time.⁴⁸⁹
721. In addition, Covec argued that a level of 75% would be more appropriate than the Commission's range of 0% to 50%, while other parties argued that cost-based regulation of MTRs would have little or no effect in terms of offsetting increases in retail mobile prices.⁴⁹⁰
722. The Commission does not agree with Covec's proposed waterbed effect of 75% for the reasons set out below.
723. Covec justify a figure of 75% by reference to the results presented in the literature.⁴⁹¹ However, as discussed below, empirical attempts to determine the strength of the waterbed effect of MTR regulation face considerable difficulties, including the need to control for other factors that may be causing movements in various mobile prices. Vodafone has itself noted the difficulties involved in such an exercise, submitting that the determinants of mobile pricing are highly complex, and that in order to isolate the waterbed effect from other factors that influence retail mobile prices, a comprehensive model of retail mobile pricing would be required. Vodafone argued that even with sophisticated econometric analysis, authors have found it difficult to isolate the waterbed effect.⁴⁹²
724. In the Commission's view, there are a number of factors that are likely to mitigate against a significant waterbed effect in the New Zealand mobile market.
725. First, any increase in mobile subscription prices or reduction in handset subsidies will risk leading to some mobile subscribers dropping off the mobile networks. A consequence of this will be that the mobile operator will lose incoming traffic to those mobile subscribers. This reduction in incoming traffic may result in a loss of economies of scale for the mobile operator, and a reduction in contributions to the operator's common costs.
726. Second, an increase in retail mobile prices by either Vodafone or Telecom would make it easier for a new entrant such as 2degrees, trying to establish itself in the mobile market, to gain market share in New Zealand. While certain mobile subscribers may not be as lucrative for a mobile operator in the event that FTM termination rates are reduced, higher retail prices and lower penetration levels are likely to enhance the entrant's prospects to gain scale. At several times during the Commission's conference, 2degrees indicated that it would be happy to take mobile customers from Telecom and Vodafone in the event that the larger mobile operators increased their retail mobile prices.⁴⁹³

'We will lower the price for prepaid customers and if other people put their prices up we are very happy to take them from them if they find our offer more attractive.'

⁴⁸⁹ Vodafone submission, 28 July 2009, paragraph 221, and Telecom submission, 28 July 2009, paragraph 9.

⁴⁹⁰ See for example, TUANZ submission, 28 July 2009, page 4; Dr Haucap submission, paragraph 30; Concept cross-submission, 18 August 2009, pages 30 and 31.

⁴⁹¹ Covec submission, 27 July 2009, paragraph 142.

⁴⁹² Vodafone submission, 28 July 2009, paragraphs 218-219.

⁴⁹³ MTAS Conference transcript, page 87. See also conference transcript, page 12.

727. Third, in the event that some mobile prices are increased (or reduced more slowly) where MTRs are subject to cost-based regulation, the response of mobile subscribers will depend on a number of factors. For example, Concept noted that mobile subscription is an ‘experience’ good, and that current subscribers who have experienced the benefits of mobile telephony are likely to be less responsive to price increases than potential subscribers (who have yet to experience such benefits) are to price reductions. This may be increasingly the case as new services become available, including new mobile data services. In the Draft Report, the Commission also noted that there may be reasons why existing mobile subscribers would be less sensitive to changes in mobile subscription prices, than prospective subscribers who have yet to purchase a mobile phone. The Commission referred to the UK Competition Commission, which has recently noted that:⁴⁹⁴

‘... factors such as the high levels of mobile usage, the utility of mobile ownership, and the perceived disadvantage of giving up a mobile phone after having used one would militate against subscribers leaving the network if subsidies were reduced.’

728. This indicates that the level of mobile subscription may be relatively insensitive to increases in subscription prices.⁴⁹⁵

729. Fourth, the Commission has previously referred to the relatively concentrated nature of the New Zealand mobile market, which indicates that any waterbed effect in New Zealand would be relatively weak.⁴⁹⁶ Other regulators have drawn similar conclusions. For example, the ACCC has noted that the Australian retail mobile services market is unlikely to be effectively competitive such that the mobile operators are subject to a zero profit constraint. The ACCC concluded that any flow-on effect on mobile subscription prices would be less than had been suggested by the mobile operators, and could even be zero.⁴⁹⁷

730. In its recent consultation on the future regulation of mobile call termination services, Ofcom commented that:⁴⁹⁸

‘We recognise that a significant waterbed effect is likely, given that retail competition in mobile services is strong, but we took the view in the March 2007 MCT Statement that it was unlikely to be complete. However, given the lack of conclusive evidence, Ofcom decided not to rely heavily on any assumption of an incomplete waterbed effect.’

731. Earlier in its consultation, Ofcom noted that many commentators regard the UK mobile market as among the most competitive in the world,⁴⁹⁹ with four established mobile network operators, a smaller entrant mobile network, and a range of wholesale-based competitors. The relative lack of competition in New Zealand suggests that the waterbed effect will be less significant in New Zealand than it has been in other markets such as the UK.

⁴⁹⁴ Competition Commission, *Mobile phone wholesale voice termination charges: Determination*, 16 January 2009, paragraph 4.10.

⁴⁹⁵ The Sunday Star Times (26 April 2009) reported “A Telecom survey of 2000 mobile users last year showed that around 20 percent of respondents said they’d rather lose their hair than their mobile, while another 15 percent would happily forgo a toe if it meant they could keep their cellphones.”

⁴⁹⁶ Draft Report, paragraphs 839 and 847.

⁴⁹⁷ ACCC, *Mobile Services Review Mobile Terminating Access Service*, June 2004, page 160.

⁴⁹⁸ Ofcom, *Wholesale mobile voice call termination: Preliminary consultation on future regulation*, 20 May 2009, paragraph 5.13.

⁴⁹⁹ *ibid*, paragraph 2.5.

732. In addition, the Commission notes that cost-based regulation of FTM termination rates is likely to have differing impacts on mobile operators, depending on whether the mobile operator also has a fixed-line business. This is because while FTM termination rates are a source of wholesale revenues for mobile operations, they are also a source of cost for fixed-line operations. A reduction in FTM termination rates will therefore lower the revenues for a mobile business, but will lower both revenues and costs for an integrated mobile and fixed business.

733. During the Commission's previous investigation into MTRs, Covec estimated the profitability impacts of regulating MTRs on a pure mobile operator such as Vodafone, and on an integrated operator such as Telecom. Covec noted that:⁵⁰⁰

‘In almost all scenarios, fixed-line operators benefit from regulation while mobile operators are made worse off.’

734. While the actual Covec results are confidential, Covec found that regulated reductions in MTRs will leave mobile operators worse off, while integrated operators may actually benefit from regulation (and will always benefit relative to pure mobile players).

735. The presence of Telecom as an operator of both a large fixed network and a mobile network is likely to influence the potential magnitude of any waterbed effect in New Zealand. As noted by Covec during the 2004-2005 MTAS investigation, an integrated operator is likely to be better off relative to a mobile-only operator as a result of regulated reductions in MTRs, particularly where the full reduction in MTRs is not passed through into retail FTM prices. As a result, the integrated operator is unlikely to have an incentive to raise retail mobile prices in order to recover lost termination revenues.

736. The ACCC has also noted that the existence of integrated operators in Australia is not conducive to a waterbed effect. In considering an MTAS undertaking by Vodafone in 2006, the ACCC commented that Frontier's attempts to model the effects of a regulated reduction in MTR:⁵⁰¹

‘... does not take into account the existence of both mobile-only and integrated fixed-line and mobile operators in the Australian market. In this regard, a MNO with different circumstances with respect to its balance of MTAS receipts and payments will not necessarily be affected in the same way as Vodafone. That is, it is possible that a MNO that is a ‘net payer’ of MTAS charges could actually benefit from a regulated reduction in MTAS charges. Such an MNO would neither have an incentive nor a requirement to increase retail mobile prices in response to a regulated reduction in MTAS charges. Further, a mobile-only carrier, such as Vodafone, would not necessarily increase its total revenue from its mobile operations by increasing its retail mobile prices in response to a regulated reduction in MTAS charges.’

737. The ACCC also noted that Vodafone had previously submitted that a waterbed effect was unlikely in Australia. In that submission,⁵⁰² Vodafone indicated that a full waterbed effect might be expected in the UK, where there are only pure mobile operators and on the

⁵⁰⁰ Covec, “Profitability Impacts of Mobile Termination Regulation”, 29 November 2004, page 1.

⁵⁰¹ ACCC, “Assessment of Vodafone’s mobile terminating access service (MTAS) Undertaking: Final Decision”, March 2006, page 204.

⁵⁰² Letter from Vodafone to ACCC, “Mobile Services Review”, 9 October 2003.

assumption that the UK mobile market is competitive (and hence no excessive profits are earned by the mobile operators in the long run). However, Vodafone submitted that:⁵⁰³

‘Given the existence of integrated carriers, the same conclusion would not apply in Australia. That is, Vodafone does not expect that there will be a corresponding increase in retail prices to mobile customers if there were significant regulated reductions in mobile termination prices. This is due to the existence of integrated carriers and the unbalanced impact that significant reductions in mobile termination prices would have on the players that are competing in the mobile market.’

738. In its advice to the Commission as part of the current investigation, WIK make a similar point.⁵⁰⁴

‘A cut of the termination rate results in lower charges for incoming FTM and off-net MTM calls (and therefore lower earnings) and in lower costs for outgoing off-net MTM calls (and therefore lower expenditure.

The net effect on a given mobile operator depends on the relative balance among these factors. Moreover, that balance is dynamic and complex – any changes in retail price will also influence usage patterns, as a result of demand elasticity.’

739. WIK note that Telstra, which is the largest mobile operator in Australia, has claimed that there is no waterbed effect in the Australian market.⁵⁰⁵ In a submission to the ACCC, Telstra argued that there has been a continued increase in the number of mobile subscribers in Australia, and that:⁵⁰⁶

‘These considerations strongly refute the existence of any waterbed effect having occurred in Australia or being likely to occur as a result of efficient cost based MTAS pricing.’

740. Vodafone has submitted that MTR reductions will have a significant impact on its revenues, claiming that the MTR reductions proposed by the Commission in the Draft Report will place more than \$300 million of Vodafone revenues at risk over five years,⁵⁰⁷ while the MTRs contained in its revised undertaking of 2 October 2009 will reduce its revenues by more than \$450 million over five years.⁵⁰⁸ However, the Commission notes the following:

- the Vodafone revenue estimates referred to above appear to be inconsistent. Vodafone claimed that its revenues will fall by a greater amount (\$450 million) as a result of its revised undertaking, than they would under regulation proposed in the Draft Report (\$300 million). This is despite the MTRs in the revised undertaking from Vodafone of 2 October 2009 being higher than the regulated MTRs proposed in the draft;
- the Vodafone figures appear to relate to the reduction in revenues as a result of lower MTRs. However, Vodafone will also experience an offsetting reduction in its costs of terminating MTM calls and SMS on other networks. Given Vodafone’s claims

⁵⁰³ *ibid*, paragraph 6.3.

⁵⁰⁴ WIK, “Commentary on issues raised in submissions regarding the Commerce Commission’s MTAS investigation and during the conference on 2 and 3 September 2009”, February 2010, page 30.

⁵⁰⁵ *ibid*, page 33.

⁵⁰⁶ Telstra, “Response to the ACCC’s Draft MTAS Pricing Principles Determination and indicative prices for the period 1 January 2009 to 31 December 2011”, 15 December 2008, page 14.

⁵⁰⁷ Vodafone submission, 28 July 2009, paragraph 46.

⁵⁰⁸ Vodafone submission, 16 October 2009, paragraph 7.

that MTM and SMS traffic is typically in balance, these cost reductions will likely cancel out Vodafone's revenue loss on this traffic, at least in respect of traffic between the established mobile operators; and

- the remaining revenue impact for Vodafone will be in the form of lower termination revenues from incoming FTM traffic. The revenue impact of lower FTM MTRs will be mitigated by the higher FTM volumes expected (as lower MTRs translate through lower FTM prices into higher FTM demand).

741. Finally, a cost-based MTR is likely to lead to more efficient consumption of both mobile subscription and mobile calling services in New Zealand.⁵⁰⁹ In the Draft Report, the Commission referred to one likely consequence of cost-based MTRs being a reduction in the ownership of multiple mobile handsets. To the extent that this occurs and consequently lowers the level of mobile subscription, this will represent an efficiency gain, rather than a detriment, for consumers.
742. For the above reasons, the Commission considers that Vodafone is likely to have considerably overestimated the impact of lower MTRs on its business. While the revenue impact on Vodafone FTM termination revenue is still likely to be significant, in the Commission's view this reflects the extent to which existing MTRs are excessive.
743. In commenting on the strength of the waterbed effect, parties referred to a number of pieces of empirical research into the relationship between MTRs and retail mobile prices (and MTRs and profits).
744. WIK comment on the empirical work that has been conducted in relation to the waterbed effect in mobile telephony. WIK note that the work by Genakos and Valletti,⁵¹⁰ who find evidence of a strong but incomplete waterbed effect, is based on customer bill data from the largest two mobile operators in each country. According to WIK, MTR reductions are likely to have differing effects on larger mobile operators, who tend to carry a higher proportion of on-net calls, than on smaller mobile operators, and the data used by Genakos and Valletti fails to capture the effects on the latter.⁵¹¹
745. WIK also question whether the data used by Genakos and Valletti are a useful indicator of mobile costs incurred by consumers. Referring to the Teligen data, WIK state that:⁵¹²

'They represent hypothetical prices for a hypothetical basket of services, using the least expensive services for that basket from the two largest mobile operators in the market. They do not reflect (1) how much service an average customer in a given country uses; (2) how customers are divided among operators; (3) how customers are divided among pricing plans within an operator; (4) which customers have which plans (and whether customers have plans that are appropriate to their usage – a number of studies suggest otherwise); and (5) most likely, there are details of the price plans that are not fully captured.'

⁵⁰⁹ As discussed below at paragraph 752, Ofcom quantify the efficiency gains arising from a more efficient structure of mobile prices

⁵¹⁰ Genakos, C., and T. Valletti, "Testing the "Waterbed" Effect in Mobile Telephony", April 2009.

⁵¹¹ WIK, "Commentary on issues raised in submissions regarding the Commerce Commission's MTAS investigation and during the conference on 2 and 3 September 2009", February 2010, page 30.

⁵¹² *ibid*, page 31.

746. It is important to note that an increase in ARPU may be due to an increase in usage such as that resulting from lower prices, or from the take-up of new services, in which case it would be inappropriate to equate the ARPU increase with an increase in retail prices.
747. WIK also question the relevance of the findings of Andersson and Hansen, arguing that the assumptions under which the authors derive their profit neutrality result are restrictive.⁵¹³
748. WIK note that CEG conducted some research on behalf of Ofcom, testing for a relationship between MTRs and various mobile market outcomes, including retail prices, penetration, and usage. According to WIK, the most important finding by CEG was the lack of a robust relationship between the level of MTRs and retail prices.⁵¹⁴
749. WIK conclude that the structure of the mobile market in New Zealand, as well as theoretical and empirical evidence, supports the assumptions used by the Commission in the Draft Report with respect to the level of the waterbed effect.⁵¹⁵
750. It is also relevant to note that the rebalancing of mobile prices via a waterbed effect may generate efficiency gains rather than detriments, to the extent that the resulting prices more closely reflect the underlying costs of supplying mobile services.⁵¹⁶ The welfare analysis conducted by Ofcom is particularly relevant in this regard.
751. In its 2007 statement on MTRs, Ofcom summarises the potential consumer detriments if MTRs⁵¹⁷ are not regulated.⁵¹⁸

‘... These are:

- i) Excessive prices overall;
- ii) Inefficient structure of prices;
- iii) Distortion of consumer choice;
- iv) Inequitable distributional effects; and
- v) Risk of anti competitive behaviour.

In order to provide an order of magnitude indication of the consumer welfare gain from regulating MCT charges Ofcom has carried out a quantitative analysis that compares consumer welfare in two scenarios: one where there is no regulation and no threat of regulation and one where mobile termination charges are regulated ...

The approach adopted by Ofcom is to consider the case in which **competition is so intense that firms’ economic profits are driven down to zero** in both the regulated and unregulated scenarios. It is therefore assumed that MNOs do not make excess profits overall as a result of setting excessive MCT charges. **As such, the analysis focuses solely on the second source of detriment listed above (inefficient structure of prices)** and does not capture the benefits to consumers if MNOs were to make excess profits in the absence of regulation (which were then removed as a result of regulation).²⁸² In

⁵¹³ *ibid*, pages 31 and 32.

⁵¹⁴ *ibid*, page 32.

⁵¹⁵ *ibid*, page 34.

⁵¹⁶ WIK also make this point. *ibid*, page 34, bullets 5 and 6.

⁵¹⁷ Mobile Call Termination charges (MCT charges).

⁵¹⁸ Ofcom, “Mobile call termination statement”, 27 March 2007, paragraphs A19.1-A19.3.

addition Ofcom's estimate does not include any quantification of the welfare gains from regulation removing: distortions of consumer choice; inequitable distributional effects; or the risk of anti competitive behaviour. Therefore, the quantification set out below is likely to provide an underestimate of the full benefits of regulation.'

(emphasis added)

752. In other words, while Ofcom recognises that regulation of MTRs may result in a number of benefits to consumers, Ofcom's quantitative analysis only focused on the gains from a more efficient structure of prices. The Commission notes that Ofcom does not attempt to quantify the potential gains from a lower level of prices or from a more competitive downstream mobile market.
753. Ofcom estimated the increase in consumer surplus resulting from a regulated reduction in MTRs:
- 'The analysis estimates the change in consumption of calls to mobiles and mobile retail services following a move (via regulation) to a more efficient price structure. The welfare gain amounts to £1.4 billion in 2010/11 (in real 2006/07 prices and to the nearest £0.1bn) and over four years under the assumption of a smooth glide-path down to the target charge from the monopoly charge amounts to approximately £3.2 billion in present value terms at the beginning of 2007/08.'
754. As noted above, Ofcom estimated that these gains in consumer welfare would arise as a result of cost-based regulation leading to a more efficient structure of prices.
755. The Commission also notes that both Vodafone and Telecom have submitted that a TSLRIC-based price for MTAS will be efficient.⁵¹⁹
756. The Commission considers that Vodafone's submission in support of a relatively high waterbed effect (with 75% of the lost termination being recovered elsewhere) is inconsistent with its view that TSLRIC is the appropriate principle for establishing an efficient price for the MTAS. The consensus that the TSLRIC pricing principle for MTAS will lead to competitive and efficient outcomes in the relevant downstream markets indicates that any detrimental effects resulting from a TSLRIC-based price for the MTAS will be relatively small.
757. Having regard to all of the above factors, the Commission has concluded that in order to estimate the potential detriments in the New Zealand market arising from changes in MTRs, it is appropriate to allow up to 25% of the reduction in wholesale FTM termination revenues to be recovered through higher mobile subscription prices. In the Commission's view, a waterbed effect based on the recovery of up to 25% of the reduction in FTM termination revenues adequately allows for such an effect at any given point in time as well as for any increasing effect that may occur over time as the mobile market becomes more competitive.

Other parameters

758. The submission from Covec referred to a number of other parameters used in the FTM model, including the retail price and volume of MTM calls, the number of mobile subscribers, and the annual ARPU.⁵²⁰

⁵¹⁹ See for example, Vodafone cross-submission, 18 August 2009, paragraph 217; Conference transcript, 3 September 2009, page 231.

759. In the draft FTM model, the Commission estimated the level of consumer surplus enjoyed by a mobile subscriber from being able to contact other mobile subscribers. This MTM surplus was estimated with reference to the average retail price of MTM calls, and the average volume of MTM calls made per subscriber.
760. The Commission has updated the MTM price and volume, based on the data responses received as part of the current investigation.⁵²¹ The Commission has also updated the number of mobile subscribers used to derive average minutes of use per subscriber in New Zealand.
761. Covec also noted that the Commission used an annual ARPU of \$450, which exceeded Telecom's annual ARPU of \$350. However, the Commission's estimate of \$450 is based on data from both Telecom and Vodafone, and the Commission considers that it is appropriate to retain this figure in the FTM model.

Potential detriments arising from the waterbed effect

762. In order to estimate the potential consumer detriments arising from mobile subscription prices that are higher where MTRs are regulated, the Commission has considered a scenario in which the mobile operators recover some proportion of their lost FTM termination revenues through higher subscription prices. The higher subscription prices under the factual of regulation will likely result in lower subscription levels, as well as lower calling to mobile subscribers (FTM and MTM calling). Based on the amendments discussed above, the Commission has estimated the resulting loss in consumer and total surplus for a waterbed effect of between 0% and 25%.
763. The reductions in MTRs resulting from a move to cost-based MTRs are summarised in Table 22. These MTRs are applied to the expected volume of FTM minutes in order to calculate the reduction in FTM termination revenues that result from cost-based regulation of the MTAS.
764. Under a 0% waterbed effect, mobile subscription prices are unaltered as a result of the reduction in FTM termination revenues, resulting in no consumer detriments from regulation. Under a 25% waterbed effect, mobile subscription prices end up being between 1.3% and 2.0% higher under regulation, depending on the benchmarked cost. The resulting range of estimated detriments are summarised in Table 24.

⁵²⁰ Covec submission, 27 July 2009, paragraphs 172 to 175.

⁵²¹ The previous data used in the draft FTM model was based on Telecom information taken from an earlier annual report.

Table 24: Reduction in Consumer and Total Surplus 2010-2015 (2009 net present value)

| | no regulatory glide-path | | | | one-year regulatory glide-path | | | |
|------------------------|---------------------------------|-----------------|----------------------|-----------------|---------------------------------------|-----------------|----------------------|-----------------|
| | consumer surplus | | total surplus | | consumer surplus | | total surplus | |
| | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% |
| Upper bound factual | | | | | | | | |
| - linear demand | \$0 | -\$113m | \$0 | -\$19m | \$0 | -\$101m | \$0 | -\$17m |
| - CED | \$0 | -\$149m | \$0 | -\$42m | \$0 | -\$135m | \$0 | -\$37m |
| Lower bound factual | | | | | | | | |
| - linear demand | \$0 | -\$133m | \$0 | -\$23m | \$0 | -\$117m | \$0 | -\$20m |
| - CED | \$0 | -\$176m | \$0 | -\$50m | \$0 | -\$157m | \$0 | -\$44m |

Direct regulatory costs

765. The Commission considers that it is appropriate to retain the estimates it used in the Draft Report of the direct costs associated with regulation, including the estimated costs incurred by the Commission in preparing and administering an STD, as well as an allowance for the costs incurred by access seekers and access providers to participate in the STD process.
766. The resulting annual direct regulatory costs are estimated to be \$1.5 million.

Summary of Potential Benefits and Detriments of Regulation of Fixed-to-Mobile Termination Rates

767. Table 25 summarises the Commission's estimated net benefits from cost-based regulation of FTM MTRs, compared to a counter-factual of no regulation that is based on the Deeds.

Table 25: Increase in Consumer and Total Surplus 2010-2015 (2009 net present value)

| | no regulatory glide-path | | | | one-year regulatory glide-path | | | |
|------------------------|---------------------------------|-----------------|----------------------|-----------------|---------------------------------------|-----------------|----------------------|-----------------|
| | consumer surplus | | total surplus | | consumer surplus | | total surplus | |
| | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% | waterbed 0% | waterbed 25% |
| Upper bound factual | | | | | | | | |
| - linear demand | \$272m | \$159m | \$79m | \$60m | \$252m | \$151m | \$83m | \$66m |
| - CED | \$277m | \$127m | \$109m | \$68m | \$255m | \$119m | \$101m | \$64m |
| Lower bound factual | | | | | | | | |
| - linear demand | \$314m | \$182m | \$92m | \$68m | \$290m | \$172m | \$99m | \$79m |
| - CED | \$322m | \$146m | \$137m | \$87m | \$293m | \$136m | \$125m | \$81m |

768. In the Commission's view, the net benefits estimated above are of a level that leads to a conclusion that regulation of the MTAS for FTM calls would best give effect to the promotion of competition for the long-term benefit of end-users, compared to a counter-factual of existing MTRs based on the Deeds.

Conclusion

Summary of conclusion and reasons

769. The Commission has determined that the following markets are relevant to the MTAS investigation:
- the wholesale MTAS market;
 - the retail mobile services market; and
 - the retail FTM/tolls market.
770. In the wholesale MTAS market, each mobile operator supplies termination services to other mobile and fixed operators. The Commission has concluded that mobile network operators are subject to limited competition in the wholesale market for MTAS on their respective networks, and that prevailing MTRs are significantly above the likely cost of supplying the MTAS in New Zealand.
771. In each of the relevant downstream markets, the MTAS is used as a wholesale input into the supply of retail services to end-users. In the retail mobile services market, there are now three mobile network operators, along with a number of wholesale-based MVNOs. The entry of 2degrees is an important development in the New Zealand mobile market, and has resulted in a significant improvement in New Zealand's ranking within the OECD in terms of pre-paid pricing.
772. However, in the Commission's view the combination of prevailing MTRs and retail on-net discounting represents a significant barrier to further entry and expansion in the New Zealand mobile market, and is likely to limit the ability of a small entrant such as 2degrees to act as a competitive constraint on the larger mobile operators. As long as MTRs remain significantly above cost, the Commission considers that the competitive impact of 2degrees or of any other future entrant is likely to be limited.
773. In the retail FTM/tolls market, prevailing MTRs are also likely to have an adverse impact on competition, by limiting the ability of fixed-only operators to compete with integrated operators of fixed and mobile networks and restricting the extent to which fixed-line operators can compete retail prices down towards the cost of supply.
774. In order to estimate the likely cost of supplying the MTAS, the Commission has undertaken a cost benchmarking exercise in which it has had regard to cost estimates of the MTAS in other countries. The Commission considers that the cost of supplying the MTAS in New Zealand in 2009 is likely to lie within a range of 5.4cpm to 8.3cpm for voice,⁵²² and 0.95 cent per SMS, and that these costs are likely to decline over time. The prevailing MTRs are significantly above these costs. Table 26 summarises the counter-factual MTRs, based on the prevailing MTRs, and the factual MTRs, based on the range of cost benchmarks, that the Commission has used in this section.

⁵²² On a second plus second basis.

Table 26: Counter-factual and Factual MTRs (NZcpm/SMS, second + second)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------|-------|-------|-------|-------|-------|-------|
| Voice (cpm) | | | | | | |
| Counter-factual | 17.72 | 16.42 | 15.14 | 13.91 | 13.11 | 12.95 |
| Upper bound factual | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| SMS (cpSMS) | | | | | | |
| Counter-factual | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 |
| Factual | 9.50 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |

775. In assessing the potential impact of cost-based regulation of the MTAS, the Commission has examined whether such regulation is likely to promote competition in the relevant downstream markets for the long-term benefit of end-users.
776. In the retail mobile services market, a reduction in MTRs towards the cost of supply is likely to remove the barrier to efficient entry and expansion identified in the competition assessment, and allow an entrant mobile operator such as 2degrees to vigorously compete for subscribers. As a result, regulation of the MTAS is likely to lead to the promotion of a more competitive downstream mobile market than would be the case if MTRs remained at the level set out in the Deeds.
777. In particular, the Commission notes the significantly higher SMS MTRs under the counter-factual, and that 2degrees has emphasised the importance of SMS to a new entrant being able to compete in the mobile market.
778. In the Commission's view, regulation is likely to result in significant additional benefits for end-users of mobile communications services in New Zealand. For example, based on a price effect of -5% resulting from cost-based MTRs, the increase in consumer surplus resulting from regulation would be around \$42 million per annum, or \$169 million over five years. The gain in total surplus would be approximately \$11 million per annum, or \$44 million over five years.
779. In the retail FTM/tolls market, cost-based regulation of the MTAS is likely to promote competition for the long-term benefit of end-users by enabling fixed-only operators to compete more effectively with integrated fixed-mobile network operators, and result in more competitive outcomes for end-users. The Commission has estimated the potential net benefits of regulation, compared to the FTM MTRs contained in the Deeds, over the period from 2010 to 2015, and these results are set out in Table 25 above..
780. In the Commission's view, the net benefits estimated above are of a level that supports a conclusion that regulation of the FTM MTAS would be in the long-term benefit of end-users.

Are there grounds to regulate?

781. In conclusion, the Commission considers that when compared to the prevailing MTRs (and those which are estimated to apply in the future in the absence of regulation), cost-based regulation of the MTAS is likely to promote competition in both the retail FTM/tolls market and the retail mobile services market, and produce significant net long-term benefits

for end-users in New Zealand, and will better give effect to section 18 of the Act than the counterfactual of no regulation.

782. Having concluded that there are grounds for regulation of the MTAS, the Commission must consider whether regulation best gives, or is likely to best give, effect to the purpose set out in section 18 of the Act compared to alternative options. The Commission has therefore compared cost-based regulation of the MTAS, with the Final Undertakings. This comparison is discussed in Section V.

SECTION VI: SHOULD UNDERTAKINGS BE RECOMMENDED FOR ACCEPTANCE?

Introduction

783. In Section V, the Commission compared a factual based on cost-based MTRs likely to apply in the event of regulation with a counter-factual based on current and estimated MTRs likely to apply in the absence of regulation. The Commission found that the wholesale MTRs based on the Deeds are unlikely to allow competitors to compete with retail on-net prices in the downstream markets. The Commission concluded that there are grounds for recommending cost-based regulation of the MTAS. This comprised the stage one assessment.

784. In this Section, the Commission has:

- considered the undertakings received from Telecom on 11 February 2010 and Vodafone on 16 February 2010 (the **Final Undertakings**), which represent the counter-factual for the stage two assessment; and
- assessed which of the recommendations open to it pursuant to the Act (e.g. pursuant to clause 3(2) of Schedule 3A of the Act) would best or be likely to best promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services in New Zealand. This comprises the stage two assessment.

Assessment Of Whether Undertakings Are More Favourable Than Regulation?

Summary of earlier undertakings received during the MTAS Investigation (prior to the Final Undertakings)

785. The Commission received a number of undertakings from Telecom, Vodafone, and 2degrees during the course of the current MTAS Investigation. These included initial undertakings received from 2degrees, Telecom and Vodafone in January 2009 (the MTRs in the latter two being based on the Deeds, extended from 2012); revised undertakings submitted by Telecom and Vodafone on 6 May 2009 (with unchanged price terms); and further revised undertakings from 2degrees, Telecom and Vodafone dated 2 October 2009.⁵²³

The Final Undertakings – the counter-factual for the stage two assessment

786. In response to feedback from the Commission on the undertakings,⁵²⁴ Telecom and Vodafone each submitted the Final Undertakings.⁵²⁵ 2degrees notified the Commission that it was withdrawing all previous undertakings. The Final Undertakings therefore form the counter-factual for the stage two assessment.

⁵²³ Telecom had additionally submitted a further undertaking as part of its submission on the Commission's Draft Report on 29 July 2009.

⁵²⁴ Commerce Commission letter, 3 December 2009.

⁵²⁵ Both Vodafone and Telecom submitted revised undertakings on 16 December 2009. On 11 February 2010, Telecom submitted a further revised undertaking in which it aligned its MTRs with those contained in Vodafone's 16 December 2009 undertaking. Vodafone submitted a further revised undertaking on 16 February 2010, addressing points of clarification raised by the Commission.

787. The MTRs contained in the Final Undertakings are summarised in Table 27.

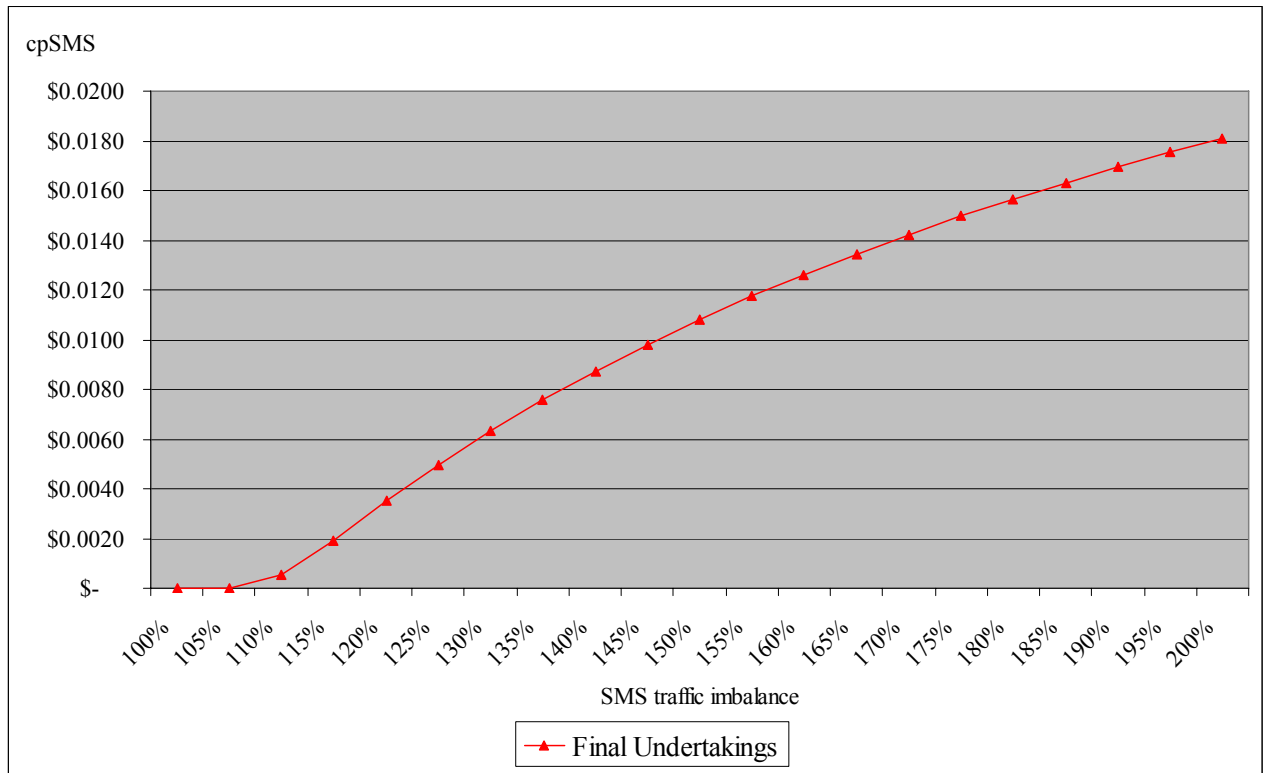
Table 27: The Final Undertakings

| | Telecom Undertaking | | Vodafone Undertaking | |
|---------------------------|---------------------------|---|---------------------------|---|
| | MTM/FTM (cpm, sec+sec) | SMS (cpSMS) | MTM/FTM (cpm, sec+sec) | SMS (cpSMS) |
| to 31 Mar 2010 | 18.45 | 9.5 | 18.45 | 9.5 |
| 1 Apr 2010 – 30 Sept 2010 | 17.71 | 9.5 | 17.71 | 9.5 |
| 1 Oct 2010 – 31 Dec 2010 | 12.00 | 0.0 for 100%-107% 2.0 for 107%-112% 4.0 for 112%+ | 12.00 | 0.0 for 100%-107% 2.0 for 107%-112% 4.0 for 112%+ |
| 2011 | 10.00 | as above | 10.00 | as above |
| 2012 | 9.00 | as above | 9.00 | as above |
| 2013 | 8.00 | as above | 8.00 | as above |
| 2014 | 6.00 | as above | 6.00 | as above |

788. For the purposes of the quantitative assessment in this Section, the Commission has utilised the MTRs and implementation dates in the Final Undertakings as the counter-factual.

789. For SMS, the Final Undertakings are based on a hybrid BAK pricing structure applying from October 2010, where no termination charge is payable on traffic that is within 7% of balance. For traffic imbalances of between 7% and 12%, the termination rate would be 2cpSMS, and for traffic imbalances in excess of 12%, the termination rate would be 4cpSMS.

790. The average termination rate paid under the hybrid BAK arrangement contained in the Final Undertakings will therefore depend on the level of SMS traffic imbalance between the mobile networks. Figure 18 shows the average SMS termination rate payable under the hybrid BAK arrangement, for different levels of traffic imbalances.

Figure 18: Average SMS Termination Rate, Final Undertakings

Comparison of earlier undertakings to the Final Undertakings

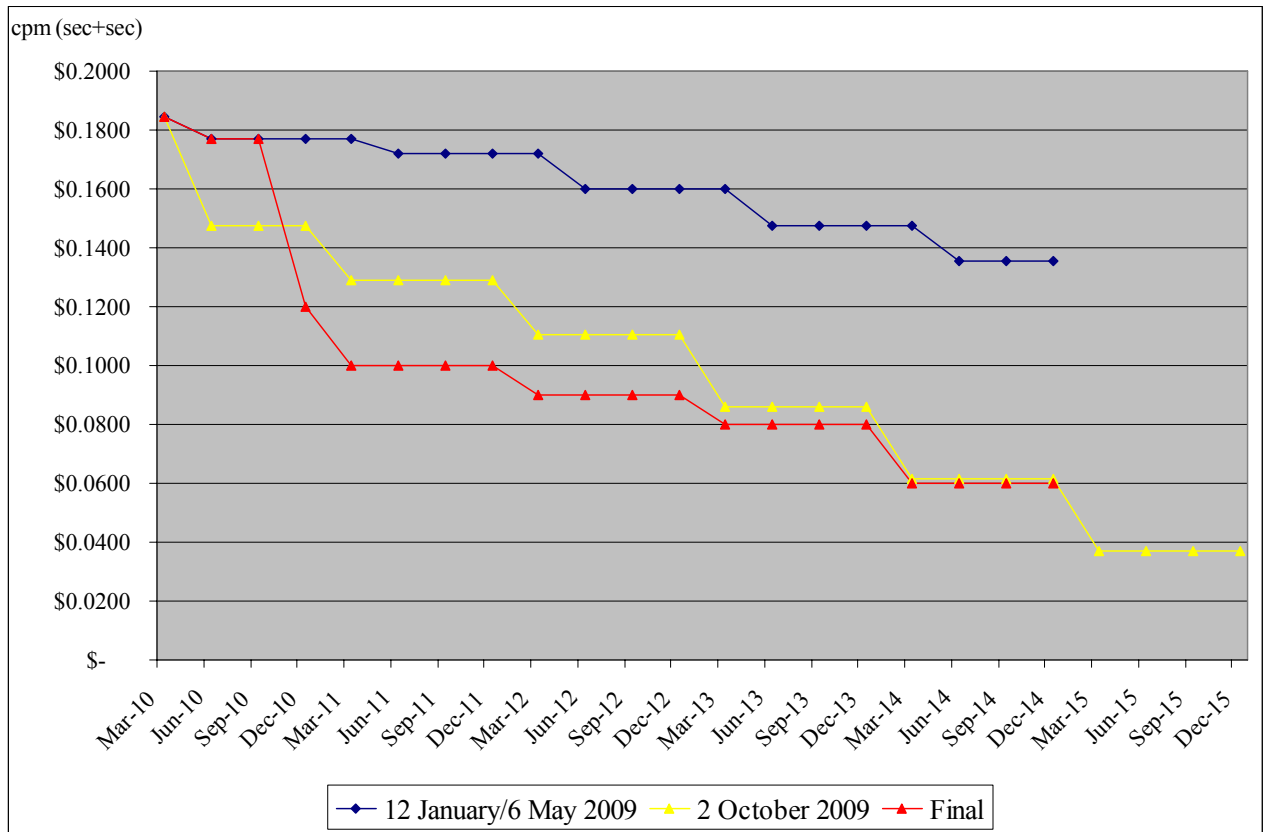
791. The Commission notes that during the course of this investigation, both Vodafone and Telecom have offered progressively greater reductions in MTRs. The 2degrees initial undertaking was based on pure BAK for both MTM and SMS termination rates.⁵²⁶ In an undertakings submitted by 2degrees on 2 October 2009, 2degrees offered MTM and FTM MTRs starting at 5.56cpm for 2010, and SMS termination based on pure BAK.⁵²⁷
792. Vodafone's offered progressive reductions in MTRs are illustrated in Figure 19. In its undertakings of 12 January 2009 and 6 May 2009, Vodafone offered to reduce the MTR from 18.45 cpm in the March 2010 quarter, to 13.53 cpm by the June 2014 quarter.⁵²⁸ Vodafone's 2 October 2009 undertaking offered reductions in the MTR from 18.45 cpm in the March 2010 quarter, to 3.69 cpm in 2015.⁵²⁹ In its 16 February 2010 undertaking, Vodafone offered to lower the MTR from 18.45cpm in the March 2010 quarter to 6.0 cpm by 2014.

⁵²⁶ NZ Communications "Undertaking to the Commerce Commission under Schedule 3A in respect of mobile termination access services".

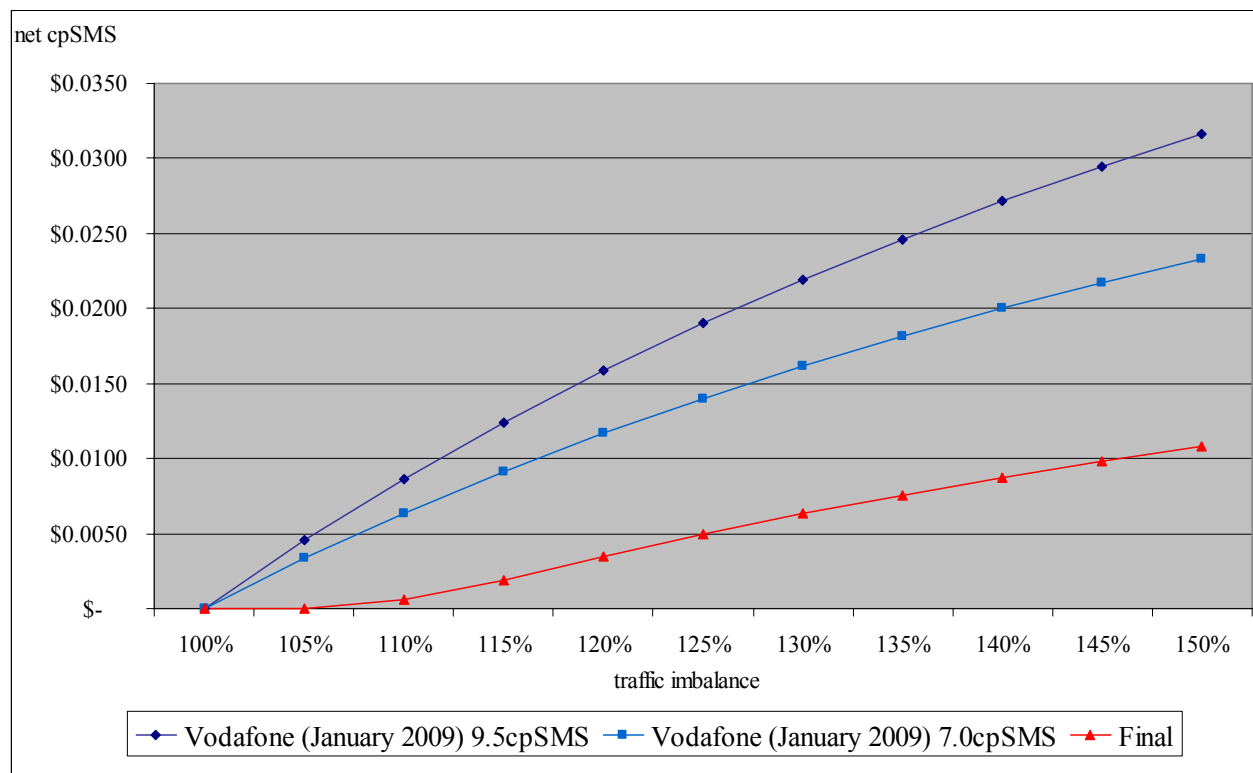
⁵²⁷ 2degrees undertakings in respect of FTM call termination, MTM call termination, and text message termination, 2 October 2009.

⁵²⁸ The MTRs in Vodafone's January and May undertakings are expressed on a minute+second basis. The MTR for the March 2010 quarter is 15cpm, declining to 11cpm by the June 2014 quarter.

⁵²⁹ The MTRs in Vodafone's 2 October 2009 undertaking are again expressed on a minute+second basis, declining from 15cpm in the March 2010 quarter, to 3cpm by 2015.

Figure 19: Vodafone Undertakings (FTM/MTM)

793. For SMS termination, Vodafone's undertaking of 12 January 2009 offered to reduce the MTR from 9.5cpSMS in the March 2010 quarter, to 7.0cpSMS by December 2014. These same SMS termination rates were contained in Vodafone's 6 May 2009 undertaking. In its 2 October 2009 undertaking, Vodafone offered an SMS termination rate of 1.2cpSMS from the June 2010 quarter. The SMS termination rates offered by Vodafone in the Final Undertakings are based on a different pricing structure, involving a BAK arrangement with rates applying to out-of-balance traffic (from October 2010). A consistent comparison of the termination rate paid under the earlier undertaking with the termination rate paid under the Final Undertakings therefore needs to take account of the level of traffic imbalance. This comparison is presented in Figure 20 in respect of the Vodafone initial and Final Undertakings.

Figure 20: Vodafone Undertakings (SMS)

794. For example,

- the SMS MTR in Vodafone's undertaking of 12 January 2009 starts at 9.5cpSMS. Where off-net traffic is in balance, the net termination payment will be zero. With a traffic imbalance of 130%, the net termination rate would be 2.2cpSMS;⁵³⁰
- according to Vodafone's 12 January 2009 undertaking, the SMS MTR is 7.0cpSMS by 2014. This is equivalent to an average termination payment of 1.6cpSMS at a traffic imbalance of 130%;
- under the Final Undertakings, the average termination rate at 130% would be 0.6cpSMS.

795. Telecom's offered progressive reductions in voice MTRs are illustrated in Figure 21. According to its undertakings of 12 January 2009 and 6 May 2009, Telecom's MTR would fall from 18.45 cpm in the March 2010 quarter, to 12.30 cpm by the June 2014 quarter.⁵³¹ In its 28 July 2009 undertaking, Telecom offered to reduce the MTR from 18.45 cpm in the March 2010 quarter, to 8.61 cpm in 2015.⁵³² In its 2 October 2009 undertaking, Telecom offered to reduce the MTR from 18.45 cpm in the March 2010 quarter to 7.00 cpm in 2014,

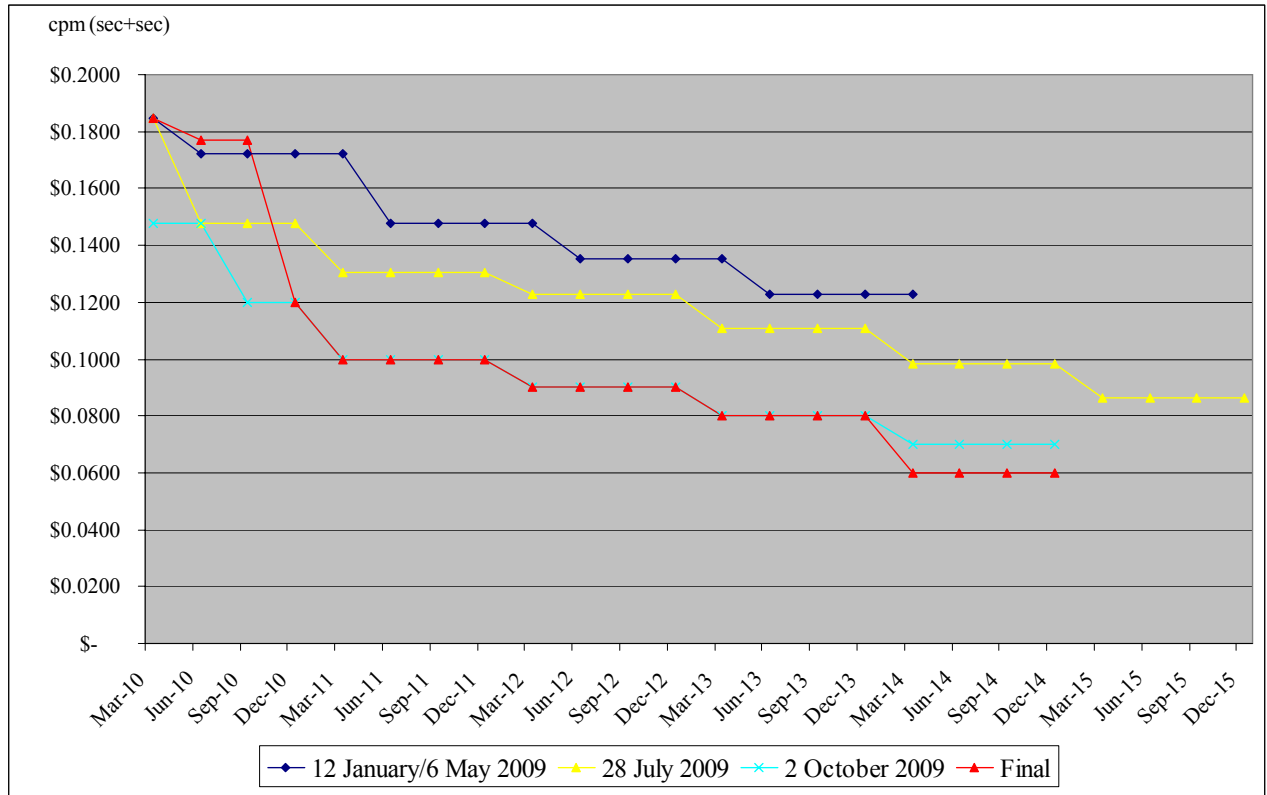
⁵³⁰ To see this, assume outgoing off-net SMS traffic for a mobile operator is 130 SMS, and incoming SMS is 100 (i.e. the mobile operator has an SMS imbalance of 130%). The mobile operator will pay 9.5cpSMS on the 130, and receive 9.5cpSMS on the incoming 100, resulting in a net payment of 285 cents, or an average of 285cents/130 (2.2cpSMS).

⁵³¹ The MTRs in Telecom's January and May undertakings are expressed on a minute+second basis. The MTR for the March 2010 quarter is 15cpm, declining to 10cpm by the March 2014 quarter.

⁵³² The MTRs in Telecom's 28 July 2009 undertaking are expressed on a minute+second basis, with an MTR for 2015 of 7.00cpm.

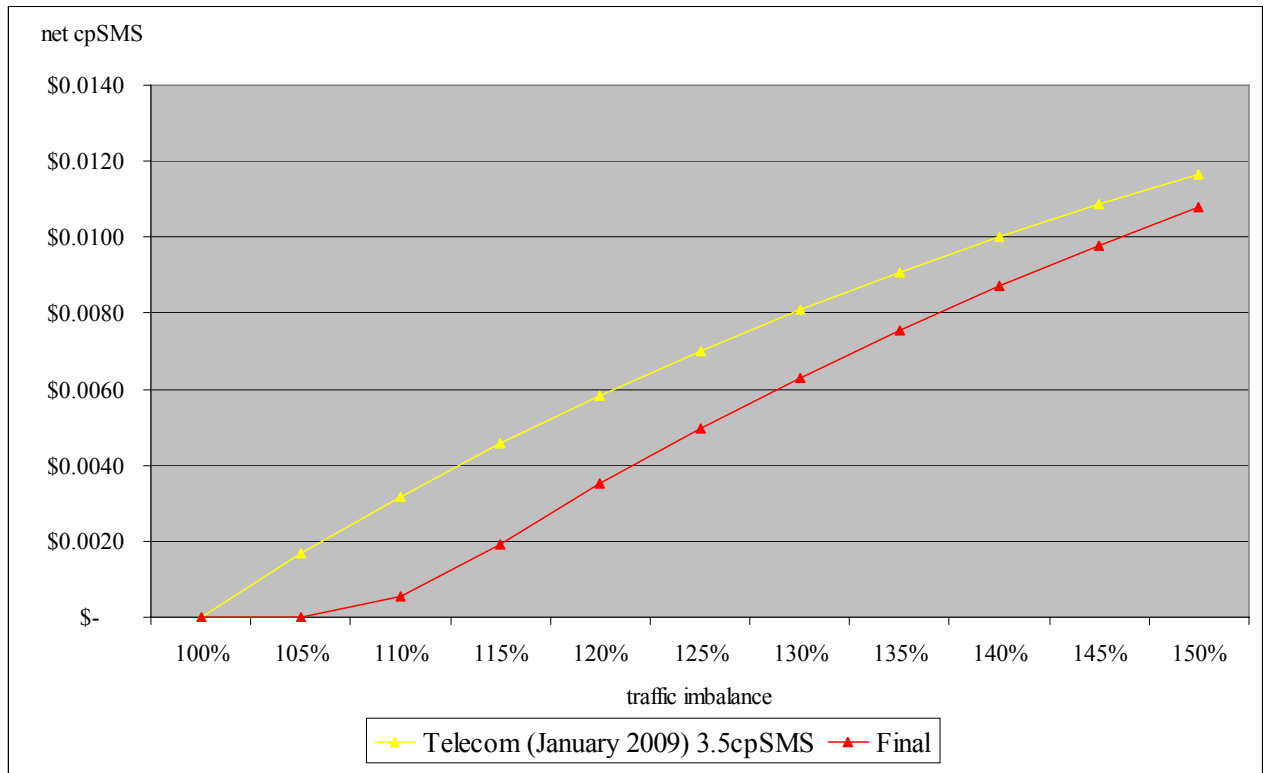
while in its 11 February 2010 undertaking, Telecom aligned its MTRs with those offered by Vodafone, resulting in an increase in MTRs that would apply in the June and September 2010 quarters (compared to Telecom's previous undertaking of 2 October 2009), and lower MTRs in 2014.

Figure 21: Telecom Undertakings (FTM/MTM)

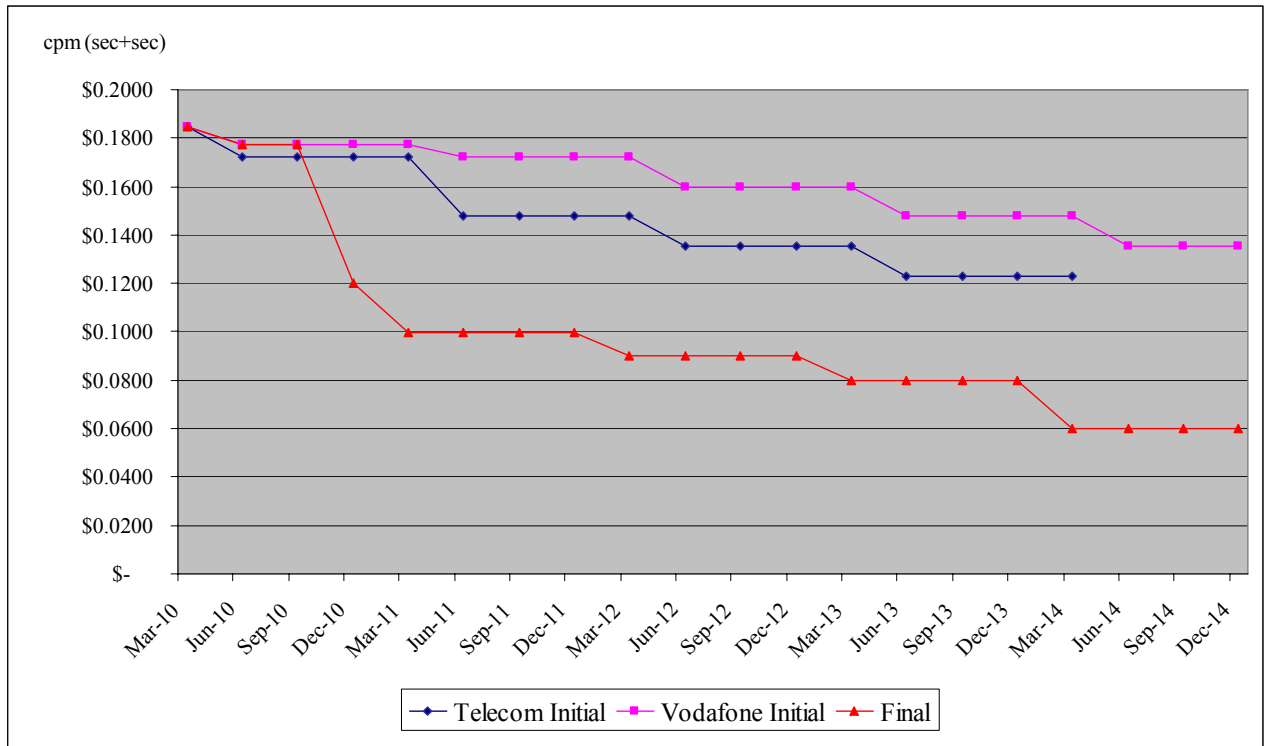


796. For SMS termination, Telecom's 12 January 2009 undertaking included SMS termination rates of 3.5cpSMS from the June 2009 quarter. The same SMS termination rates were offered by Telecom in its undertakings of 6 May 2009 and 28 July 2009. In its 2 October 2009 undertaking, Telecom proposed a hybrid BAK arrangement for SMS termination, with out-of-balance rates of 3cpSMS for SMS traffic imbalances of between 107%-112%, and 8cpSMS for SMS traffic imbalances of greater than 112%. In the 11 February 2010 undertaking, Telecom reduced the out-of-balance rates to 2cpSMS (107%-112%) and 4cpSMS (112%+), applying from the March 2010 quarter. In the Final Undertakings, Telecom deferred the introduction of the hybrid BAK rates until October 2010, with out-of-balance traffic charged at 2cpSMS (107%-112%), and 4cpSMS (112%+).
797. Figure 22 summarises the SMS termination rates that would be paid at various levels of SMS traffic imbalance under the initial Telecom undertaking and the Final Undertakings.

Figure 22: Telecom Undertakings (SMS)



798. Under the counter-factual based on the Final Undertakings, Telecom and Vodafone would reduce MTRs more quickly and further than would be the case under the earlier undertakings. This is shown in Figure 23 in the case of the MTRs applying to MTM and FTM traffic.

Figure 23: Initial and Final Undertakings, MTM/FTM (Telecom and Vodafone)

799. As shown in Figure 23, the Final Undertakings represent significant reductions in MTRs when compared to the undertakings submitted by Telecom and Vodafone earlier in the Commission's investigation. The MTRs that would apply to FTM and MTM traffic in the Final Undertakings from October 2010 are between 30% and 59% lower than the MTRs in the 12 January 2009 undertakings submitted by Telecom and Vodafone which, as discussed, are based on the current prevailing rates in the Deeds.
800. As also shown in Figure 20 and Figure 22 above, both Vodafone and Telecom have also offered significant reductions in the MTRs applying to SMS compared to the undertakings they submitted earlier in the MTAS investigation.

Summary of the factual

801. The Commission's factual of cost-based regulation is discussed in Section IV.⁵³³ The same factual is used here to inform the Commission's assessment as to whether regulation should be recommended, or whether the Final Undertakings should be recommended for acceptance (or any of the other options open to the Commission pursuant to clause 3(2) of Schedule 3A of the Act should be adopted).
802. Under the factual of regulation, the Commission has determined a range within which it is considered a cost-based MTR would be likely to lie. The factual MTRs used in the Commission's assessment to determine whether there are grounds to recommend regulation are summarised in Table 16.

⁵³³ See paragraphs 571 to 577.

Table 28: Factual MTRs (NZcpm, second+second)

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------------|-------|-------|------|------|------|------|
| FTM/MTM | | | | | | |
| <i>no regulatory glide-path</i> | | | | | | |
| Upper bound factual | 18.45 | 6.72 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual | 18.45 | 4.77 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| <i>regulatory glide-path</i> | | | | | | |
| Upper bound factual* | 18.45 | 10.18 | 6.05 | 5.45 | 4.90 | 4.41 |
| Lower bound factual* | 18.45 | 9.14 | 4.49 | 4.22 | 3.96 | 3.73 |
| | | | | | | |
| SMS | | | | | | |
| Factual (cpSMS) | 9.50 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |
| Factual* (cpSMS) | 9.50 | 3.63 | 0.69 | 0.62 | 0.56 | 0.50 |
| | | | | | | |

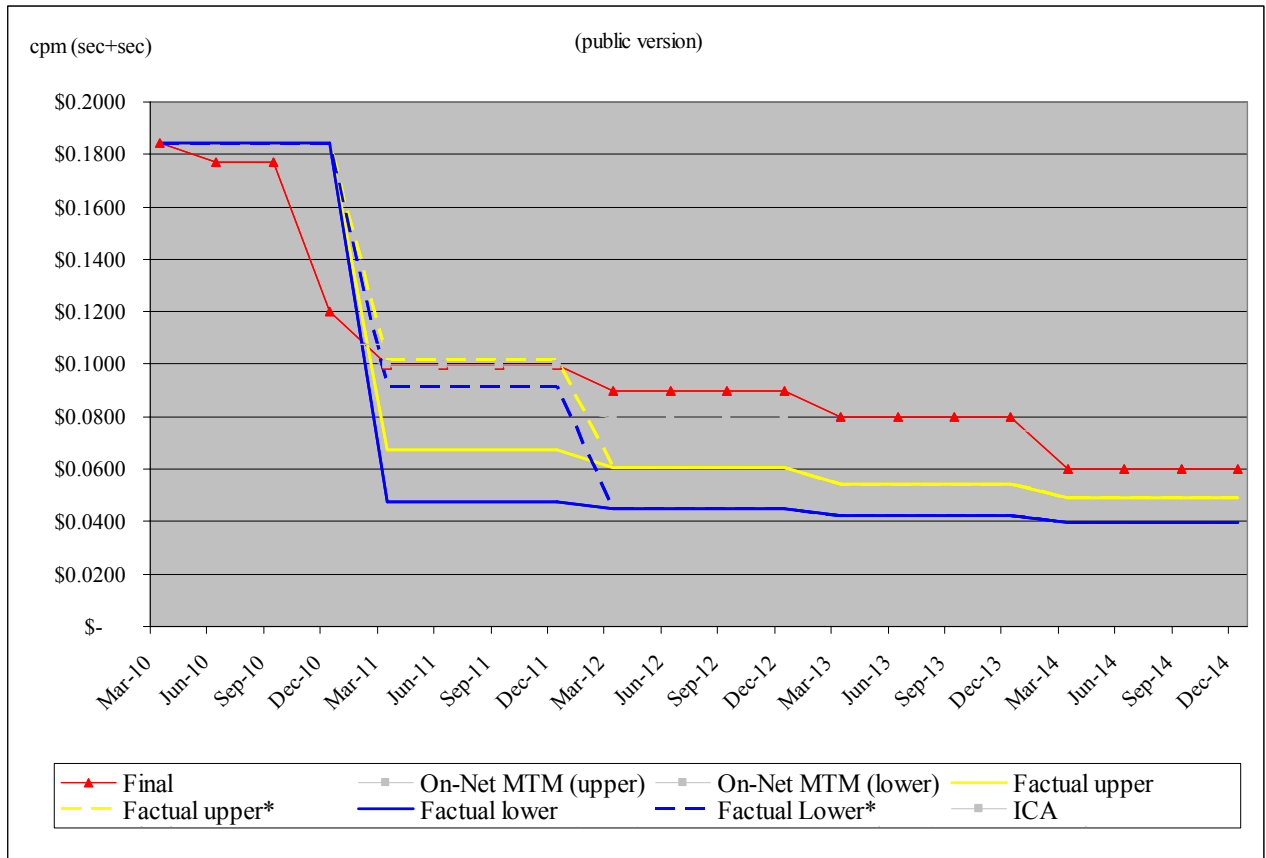
* With a one-year regulatory glide-path

Potential Impact of Regulation of Mobile-to-Mobile Termination Rates compared to the counter-factual

MTM voice

803. Figure 24 summarises the MTRs that would apply to MTM traffic under the Final Undertakings and the MTRs that could likely apply under regulation. In addition, the range of estimated implied on-net MTM termination rates derived by the Commission is shown, along with the [] CAPI.
804. Also shown in Figure 24 are the factual MTRs that would result in the event that the Commission were to phase in the reduction to cost-based MTRs under regulation over a period of 12 months following the completion of the STD process (i.e. a one-year regulatory glide-path).

Figure 24: Final Undertaking and regulation, MTM



* Factual MTRs including a one-year regulatory glide-path.

805. The MTRs in the Final Undertakings remain above the Commission’s range of benchmarked costs. This is summarised in Table 29 below. For example, in 2011, the MTRs in the Final Undertakings are 10cpm; the Commission’s range of cost estimates is between 4.77 cpm and 6.72 cpm. In other words, the 2011 MTR offered by Telecom and Vodafone is between 49% and 110% above the Commission’s estimate of the cost of the MTAS for that year.

Table 29: Final Undertakings MTR as % of Regulated MTR

| Factual | Mar-10 | Jun-10 | Sep-10 | Dec-10 | 2011 | 2012 | 2013 | 2014 |
|----------------------|--------|--------|--------|--------|------|------|------|------|
| <i>No glide-path</i> | | | | | | | | |
| - upper bound | 100% | 96% | 96% | 65% | 149% | 149% | 147% | 122% |
| - lower bound | 100% | 96% | 96% | 65% | 210% | 201% | 190% | 151% |
| <i>Glide-path</i> | | | | | | | | |
| - upper bound | 100% | 96% | 96% | 65% | 98% | 149% | 147% | 122% |
| - lower bound | 100% | 96% | 96% | 65% | 109% | 201% | 190% | 151% |

806. While the MTRs contained in the Final Undertakings exceed the Commission’s benchmark range of cost-based MTRs, the MTRs in the Final Undertakings generally lie within the range of estimated implied on-net rates over the period. This indicates that the MTRs in the Final Undertakings have reduced the barrier to entry and expansion identified in

Section III, and would allow a small entrant such as 2degrees to offer retail off-net MTM services – where it originates the call on its own network, and terminates the call on Vodafone or Telecom’s network at the MTR contained in the undertaking – at prices that are comparable to the average retail on-net prices of Telecom and Vodafone. In being able to offer retail off-net services at a price that is competitive with the retail on-net prices of the larger mobile networks, 2degrees would be able to overcome the tariff-mediated network effect on on-net discounting, and compete for and attract mobile subscribers.

807. While the MTRs in the Final Undertakings exceed the on-net range during 2010, the MTRs that would apply in 2010 in the event that the MTAS is designated also lie above the on-net rates.
808. In addition, the Commission notes that [] CAP contained in the Vodafone/2degrees ICA. As shown in Figure 24, [] CAP. The Vodafone/2degrees ICA is likely to cover a significant proportion of 2degrees off-net MTM traffic.⁵³⁴

SMS

809. Under the hybrid BAK price structure for SMS termination in the Final Undertakings, the actual MTR paid will depend on the level of traffic imbalance between the networks. As noted earlier, if SMS traffic is within 107% of balance, no charge would apply. A termination rate of 2cpSMS would apply for SMS traffic imbalances of 107% to 112%, and 4cpSMS for SMS traffic imbalances that exceed 112%. As a result, the average SMS termination rate paid by the net originator will depend on the level of traffic imbalance, as shown in Figure 18.
810. According to 2degrees:⁵³⁵
- ‘The Commission seems of the view that Telecom’s “netting off” of text charges within a closely defined range constitutes a form of Bill and Keep. 2degrees has made it clear that Bill and Keep means a price of zero.’
811. While 2degrees preference is for a pure BAK pricing approach, the Commission considers that hybrid BAK arrangement contained in the Final Undertakings is nevertheless a form of BAK. The Commission notes that such a charging regime is clearly anticipated in the Act, where the pricing principles for fixed PSTN interconnection explicitly provide for the option not only of pure BAK, but for ‘a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and TSLRIC applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin).’⁵³⁶ The Commission has evaluated the out-of-balance charges proposed by Telecom and Vodafone for SMS termination, by having regard to the likely levels of SMS imbalance and the resulting SMS termination payments that would be made by 2degrees.

⁵³⁴ For example, based on the traffic data provided to the Commission by Telecom, Vodafone, and 2degrees for the months of August and September 2009, 2degrees outgoing off-net traffic []CRI. The 2006-2008 data provided to the Commission by Telecom and Vodafone indicates that Vodafone terminated between []CRI% and []CRI% of off-net MTM traffic over the period.

⁵³⁵ Letter from 2degrees to Telecommunications Commissioner, 16 December 2009, paragraph 7(f).

⁵³⁶ See Telecommunications Act, Schedule 1, Part 2, Subpart 1, Final pricing principle for Interconnection with Telecom’s fixed PSTN.

812. Regarding the possible levels of SMS traffic imbalance between 2degrees as the small entrant, and the larger mobile operators, the Commission notes the following:
- in the two months of August and September 2009, the SMS traffic from 2degrees to Vodafone was on average [] CRI % of the traffic from Vodafone to 2degrees;⁵³⁷
 - in the two months of August and September 2009, the SMS traffic from 2degrees to Telecom was on average [] CRI % of the traffic from Telecom to 2degrees;⁵³⁸
 - 2degrees headline off-net retail price for SMS is 9cpSMS; for Telecom and Vodafone, their headline off-net retail price for SMS is 20cpSMS. The 2degrees off-net price is 55% below those of Telecom and Vodafone, and an elasticity of demand of -0.6, implies that demand for off-net SMS by 2degrees subscribers should be 33% higher than demand for off-net SMS by Telecom and Vodafone subscribers, or, in other words, an SMS traffic imbalance of 133%⁵³⁹; and
 - the average on-net retail price for SMS (Telecom and Vodafone) was [] CRI cpSMS in 2008, while the average off-net retail price for SMS was [] CRI cpSMS. If 2degrees entered with an off-net price equal to the incumbents' on-net price, in order to break into the on-net calling circles, the off-net price reduction would be [] CRI %. Following the above, this implies a level of SMS traffic imbalance of up to [] CRI%.
813. The above indicates that the level of SMS traffic imbalance could be expected to be up to approximately [] CRI %, although early indications of actual SMS traffic volumes involving 2degrees suggest a lower level of imbalance.
814. Under the hybrid BAK pricing contained in the Final Undertakings, the average SMS termination rate that would be paid by 2degrees at a traffic imbalance of [] CRI % would be [] CRI cpSMS; at 133%, the average SMS termination rate paid would be 0.71cpSMS.
815. These average SMS termination rates compare to the Commission's estimates of the implied on-net rates charged by each of Vodafone and Telecom to terminate their on-net SMS traffic, of between [] CRI. As shown in Table 13, the Commission's cost-based estimate for SMS termination in 2009 is 0.95cpSMS, declining to 0.86cpSMS in 2010.

⁵³⁷ In a report for 2degrees dated 16 October 2009, Ralph and Lanigan use an SMS traffic imbalance of 122% (i.e. the volume of 2degrees' outbound SMS is 122% of the volume of 2degrees' inbound SMS traffic). According to Ralph and Lanigan, the 122% ratio []RI the current imbalance that 2degrees has with Vodafone (of approximately []RI, but is []RI. Ralph, E., and E. Lanigan, "Submission to the Commerce Commission on the revised MTAS Undertakings", 16 October 2009, footnote 3.

⁵³⁸ This level of outgoing SMS traffic from 2degrees to Telecom, relative to SMS traffic from Telecom to 2degrees, appears to be very low. The Commission notes that according to Ralph and Lanigan, the SMS traffic imbalance between 2degrees and Telecom is []CRI% (ibid, page 5), rather than the []CRI% derived from the traffic data supplied to the Commission by the mobile operators.

⁵³⁹ The actual level of traffic imbalance would be moderated to the extent that the 33% increase in outgoing SMS from 2degrees is reciprocated through higher volumes going in the other direction.

816. In commenting on the 2 October undertakings of Telecom, Ralph and Lanigan submitted that the out-of-balance SMS termination rates would place a floor beneath retail off-net SMS prices. According to Ralph and Lanigan.⁵⁴⁰

‘... under the Telecom Undertaking text termination rate structure {of 2 October} any carrier is unlikely to cutting {sic} its retail off-net text prices below 2degrees current \$0.08 (ex-GST). This is because such a cut would risk pushing outbound texts beyond the 12% balance point, and then each additional text would earn less than the text termination fee thereby incurring losses.

...

The preceding discussion demonstrated that the \$0.08 marginal rate for terminating texts places a floor under retail off-net text prices.’

817. Ralph and Lanigan also submitted that the average and marginal termination rates under Telecom’s proposed hybrid BAK pricing structure would exceed the implied on-net termination rate.⁵⁴¹
818. The Commission notes that in the Final Undertakings, the out-of-balance SMS termination rates have been reduced, with the 8cpSMS rate for SMS imbalances of greater than 112% being lowered to 4cpSMS. This indicates that the floor referred to in the Ralph and Lanigan submission is lower, allowing for the possibility of downward competitive pressure on retail off-net SMS prices. The lower out-of-balance rates in the Final Undertakings also suggest that the level of traffic imbalance required for the average termination rate to exceed the implied on-net rates would have to be higher.⁵⁴²
819. For example, given the higher out-of-balance rates in the 2 October undertaking (of 3cpSMS and 8cpSMS), Ralph and Lanigan estimated that the threshold imbalance would be []CRI. However, given the lower out-of-balance rates in the Final Undertakings (of 2cpSMS and 4cpSMS), the traffic imbalance would have to reach approximately []CRI before the average SMS termination rate exceeded the implied on-net termination rates.
820. In addition, the Commission notes that in focusing on the marginal termination rates of 2cpSMS and 4cpSMS contained in the Final Undertakings, Ralph and Lanigan do not take account of the termination revenues that would be earned on incoming responses to outgoing SMS. The average termination rates referred to by the Commission in paragraph 814 above are based on outgoing and incoming traffic flows.
821. At the MTAS conference, 2degrees commented on the importance of SMS.⁵⁴³

‘SMS is critically important for us to get into the market because what you find is that the mobile services that are offered in New Zealand are a combination of voice and text.’

⁵⁴⁰ *ibid*, page 5.

⁵⁴¹ *ibid*, page 6.

⁵⁴² The Commission notes that Ralph and Lanigan used the average SMS termination rate in their margins analysis earlier in their 16 October 2009 submission (see footnote 3 of that submission). While the marginal rates (2cpSMS and 4cpSMS, depending on the level of traffic imbalance) exceed the Commission’s cost estimate and implied on-net termination rates, the use of the average termination rate paid takes into account the likely return traffic.

⁵⁴³ MTAS Conference transcript, page 105.

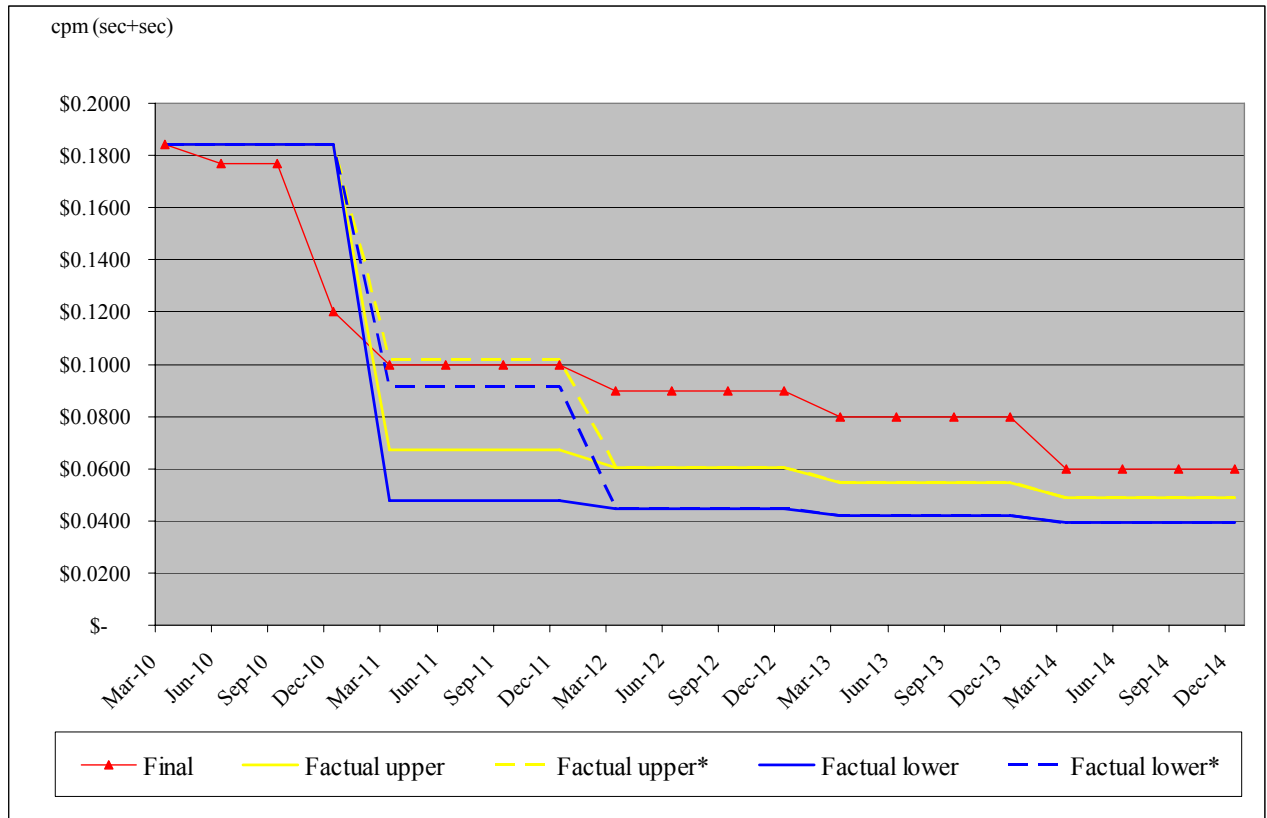
822. The SMS termination rates contained in the Final Undertakings from Telecom and Vodafone represent a significant reduction from the prevailing SMS termination rate of 9.5cpSMS

Conclusion

823. Based on the above, the Commission considers that the MTM and SMS termination rates proposed by Telecom and Vodafone in the Final Undertakings should enable a small entrant such as 2degrees to enter and expand in the retail mobile services market. The wholesale MTRs proposed in the Final Undertakings are generally consistent with the implied termination rates at which Telecom and Vodafone each terminate their own on-net traffic.

Potential Impact of Regulation of Fixed-to-Mobile Termination Rates compared to the counter-factual

824. Despite the significant reductions in MTRs offered by both Telecom and Vodafone in the Final Undertakings, under the counter-factual the MTRs that would apply to FTM traffic remain above the Commission's estimates of the cost of terminating such traffic, as shown in Table 29.
825. One of the potential advantages of an undertaking compared to regulation is the ability to deliver earlier reductions in MTRs due to the time associated with determining a regulated MTR under the STD process. As discussed earlier, for the purposes of this investigation the Commission considers that a regulated MTR could take effect from January 2011. As shown in Figure 25, the undertakings deliver lower MTRs in 2010 compared to the factual of regulation, but higher MTRs later in the period.

Figure 25: Final Undertakings and Regulation, FTM

* Factual MTRs including a one-year regulatory glide-path

826. The Commission has estimated the potential net benefits from cost-based FTM MTRs pursuant to regulation compared to the MTRs contained in the Final Undertakings. The quantitative model used by the Commission in Section V to determine whether there are grounds for regulation is used, with the new counter-factual scenario based on the Final Undertakings.
827. Table 30 summarises the quantitative benefits from regulation, compared to the Final Undertakings. The benefits delivered by regulation (compared to the Final Undertakings) depend on the strength of the waterbed effect (0% to 25%), the range of the factual MTRs, and whether a regulatory glide-path is used. For example, under the upper bound factual with linear demand and no regulatory glide-path, regulation would increase consumer surplus over the 5 years by between \$16 million (25% waterbed effect) and \$46 million (0% waterbed effect). The level of benefits also depend on the form of demand that is used to quantify the increase in FTM minutes resulting from lower prices.⁵⁴⁴

⁵⁴⁴ See paragraphs 697 to 703 above for a discussion of linear and constant elasticity demand.

Table 30: Increase in Consumer and Total Surplus 2010-2015 (2009 net present value)

| | no regulatory glide-path | | | | one-year regulatory glide-path | | | |
|---------------------|--------------------------|----------|---------------|--------------|--------------------------------|----------|---------------|--------------|
| | consumer surplus | | total surplus | | consumer surplus | | total surplus | |
| | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed |
| | 0% | 25% | 0% | 25% | 0% | 25% | 0% | 25% |
| Upper bound factual | | | | | | | | |
| - linear demand | \$46m | \$16m | -\$3m | -\$8m | \$24m | \$6m | -\$1m | -\$4m |
| - CED | \$47m | \$8m | \$13m | \$3m | \$25m | \$1m | \$5m | -\$1m |
| Lower bound factual | | | | | | | | |
| - linear demand | \$89m | \$39m | \$4m | -\$4m | \$62m | \$28m | \$10m | \$4m |
| - CED | \$92m | \$27m | \$34m | \$15m | \$63m | \$17m | \$22m | \$9m |

Note: figures shown in red indicate a net detriment from regulation (i.e. a net benefit from the Final Undertakings).

828. Table 30 shows that in most cases, cost-based regulation of the MTR that applies to FTM traffic delivers positive net benefits when compared to the Final Undertakings. However, the net benefits of regulation are considerably reduced from the levels estimated where the counter-factual is based on MTRs contained in the Deeds (as was the case for the stage one assessment).⁵⁴⁵ This reflects the lower MTRs that have been offered by Vodafone and Telecom in the Final Undertakings.
829. The reduction in the MTRs contained in the Final Undertakings (compared to a factual based on actual and estimated MTRs from the Deeds) has resulted in some of the benefits of regulation being captured by the undertakings. Table 31 summarises the proportion of the net benefits from regulation of the FTM MTR that would be achieved by the Final Undertakings.

Table 31: Proportion of Net benefits of FTM MTR Regulation achieved via Final Undertakings

| | no regulatory glide-path | | | | one-year regulatory glide-path | | | |
|---------------------|--------------------------|----------|---------------|-------------|--------------------------------|----------|---------------|-------------|
| | consumer surplus | | total surplus | | consumer surplus | | total surplus | |
| | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed | waterbed |
| | 0% | 25% | 0% | 25% | 0% | 25% | 0% | 25% |
| Upper bound factual | | | | | | | | |
| - linear demand | 83% | 90% | 104% | 114% | 90% | 96% | 101% | 106% |
| - CED | 83% | 93% | 88% | 96% | 90% | 99% | 95% | 102% |
| Lower bound factual | | | | | | | | |
| - linear demand | 72% | 78% | 95% | 106% | 79% | 84% | 90% | 95% |
| - CED | 72% | 82% | 75% | 82% | 78% | 87% | 82% | 88% |

830. For example, if the regulated MTR is set at the upper bound of the Commission's cost estimates, the Final Undertakings would achieve between 83% and 93% of the increase in

⁵⁴⁵ See Table 25

consumer surplus resulting from the immediate introduction of the cost-based MTR, and between 90% and 99% of the increase in consumer surplus where the cost-based MTR is introduced over a period of 1 year. The corresponding proportions would be lower if the regulated MTR is at the lower end of the Commission's cost estimates.

831. In the Draft Report,⁵⁴⁶ the Commission expressed a concern that above-cost MTRs may constrain the ability of non-integrated fixed-line suppliers of calling services to compete with integrated suppliers such as Vodafone and Telecom. The Commission noted that its annual monitoring report for 2007 had reported both Telecom and Vodafone offering retail prices to business customers that were close to or below the wholesale MTR, and that this had continued to be the case. In the Draft Report, the Commission referred to Vodafone's business landline and calling package ("Business Tolls Plus"), where the retail price for FTM calls to a Vodafone mobile subscriber was 13 cpm (excluding GST). The Commission noted that the prevailing MTR under the Vodafone Deed was 15 cpm.
832. The Commission has estimated that the non-termination costs of supplying a retail FTM call are around 3 cpm (including fixed origination costs of 1 cpm, transport costs of around 1.2 cpm, and retail-related costs (amounting to 18% of the retail price)). An "on-net" retail FTM price of 13 cpm (minute + second) is equivalent to approximately 16 cpm (second + second). Allowing for non-termination costs of 3 cpm implies that the FTM termination rate should be no more than 13 cpm (second + second) in order for a non-integrated fixed-line operator to be able to compete with the on-net FTM price offered by Vodafone.
833. As shown in Table 27, the Final Undertakings offer an MTR of 18.45 cpm in the March 2010 quarter, dropping to 17.71 cpm in the June and September 2010 quarters, and further to 12 cpm in the December 2010 quarter. This indicates that beyond the September 2010 quarter, the MTRs contained in the Final Undertakings would likely enable a non-integrated fixed-line operator to compete with current retail on-net FTM.
834. The Commission also notes that under the factual of regulation, existing and potential non-integrated fixed-line operators would be faced with a relatively high MTR throughout 2010.
835. While the MTRs in the Final Undertakings would appear to allow non-integrated fixed-line operators to compete with integrated operators such as Vodafone and Telecom in the supply of retail FTM calls, the MTRs contained in these undertakings remain above the Commission's estimates of the cost of supplying the MTAS. As a result, the net benefits from regulation of the MTR applying to FTM traffic generally exceed the net benefits from the Final Undertakings, as shown in Table 30. In other words, while the Final Undertakings achieve the proportion of the net benefits of regulation shown in Table 31, the remaining benefits from regulation are estimated by the Commission to be up to 28% of the total benefits of regulation when compared to prevailing MTRs.

Consequences if Final Undertakings are accepted

836. The Commission's conclusions with respect to the acceptability of the Final Undertakings are set out in the *Recommendations and Reasons* section of this Final Report. The

⁵⁴⁶ See Draft Report, paragraphs 690 to 691.

following paragraphs discuss considerations applicable if the Final Undertakings are accepted by the Minister.

Reciprocity provisions in the Final Undertakings and provision of MTAS by 2degrees

837. The Commission noted in its letter of 9 November 2009 to 2degrees, Telecom and Vodafone that:⁵⁴⁷

‘reciprocity is a requirement of all of the Revised Undertakings. ...

the Commission’s preliminary view is that symmetry in the price terms and services covered by each of the Revised Undertakings is strongly desirable as it would avoid the potential distortions and inefficiencies associated with asymmetric rates.

The Commission’s preliminary view is that a uniform set of non-price terms is not necessary in order to address incompatibilities between the Revised Undertakings. However, as the reciprocity condition currently applies also to non-price terms, any material inconsistencies between these terms would need to be clearly resolved between the parties or the reciprocity condition would need to be removed in relation to non-price terms.’

838. The Commission notes that the Final Undertakings provide that reciprocal services must be provided both by and to Telecom and Vodafone.

839. The Telecom 11 February 2010 Undertaking provides that Telecom and any access seeker:

‘who provides a properly completed and executed Deed of Acceptance ... agree to provide to each other the Services covered by this undertaking on the terms set out below ...’⁵⁴⁸

840. The substantive provisions of the Telecom 11 February 2010 Undertaking then provide for reciprocity of terms and conditions, with some exceptions such as the non-reciprocal charges discussed in paragraphs 897 to 901.

841. Under the Vodafone 16 February 2010 Undertaking, an access seeker is required to:⁵⁴⁹

‘undertake to make available to Vodafone, at any time when we operate a cellular mobile network in New Zealand and at any time requested by Vodafone, a telecommunications service that is the same as the Vodafone Mobile Termination Access Services at prices no greater than those specified in Schedule 2 of this Undertaking, and otherwise on reciprocal terms that are the same as the terms on which Vodafone makes available the Vodafone Mobile Termination Access Services under the Undertaking, mutatis mutandis.’

842. Telecom and Vodafone, in their joint letter of 23 November 2009, noted that:⁵⁵⁰

‘Telecom and Vodafone agree that the best approach to resolve the Commission’s concerns about reciprocity would be for Telecom and Vodafone to submit undertakings with aligned terms on all material issues. These undertakings would require reciprocity. It may be the case that 2degrees need not submit an undertaking.

⁵⁴⁷ Letter from Dr Ross Patterson to 2degrees, Telecom and Vodafone, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009.

⁵⁴⁸ Telecom 11 February 2010 Undertaking, Annexure 1 – Mobile Termination Terms.

⁵⁴⁹ Vodafone 16 February 2010 Undertaking, *Schedule 5: Deed of Acceptance - Vodafone Mobile Termination Access Services*, page 111, clause 7.

⁵⁵⁰ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, page 1 and 2.

- For MTM and SMS, 2degrees could rely on its existing interconnection arrangements, or move to the terms of the Telecom and Vodafone undertakings at its choice.
- Alternatively, the Commission may wish to give fixed access seekers certainty on the terms of access to FTM services on 2degrees' network by encouraging 2degrees to submit an undertaking for FTM services only.

... Telecom and Vodafone are now aligned on all material non-price issues, as set out in the attached table.'

Reciprocity between Telecom and Vodafone

843. The Commission notes that, as a consequence of the reciprocity requirements in the Final Undertakings, directly or indirectly, there could be a conflict between the terms of the Final Undertakings, in relation to the provision of the MTAS between Telecom and Vodafone, where the parties choose to receive the MTAS from each other pursuant to the Final Undertakings.
844. Having regard to Telecom and Vodafone's statement that they consider the Final Undertakings to be 'aligned on all material non-price issues'⁵⁵¹ and given that, where required, Telecom and Vodafone are in a position to negotiate any inconsistencies in non-price terms between the Final Undertakings as a commercial matter as between them, the Commission does not consider that the lack of complete reciprocity in non-price terms between the Final Undertakings (with respect to the provision of MTAS between Telecom and Vodafone) is a material issue that affects its assessment of the acceptability of the Final Undertakings.

Reciprocity between 2degrees, Telecom and Vodafone

845. In withdrawing its undertakings, 2degrees proposed that:⁵⁵²
- '... if the Commission is determined to recommend acceptance of Voluntary Undertakings we urge the Commission to, as a minimum:
- (a) Insist on Mobile to Mobile text pricing on a pure Bill & Keep basis;
 - (b) Insist on separation of MTAS Undertakings such that SMS, FTM and MTM voice services are capable of acceptance individually; ...'
846. The Commission expressed a preliminary views in its letter to parties of 3 December 2009 that in relation to the pricing principle for SMS:⁵⁵³
- '**SMS pricing principle** – the Commission considers that some form of bill and keep would be an appropriate pricing principle for the Commission's assessment for the factual for SMS'
847. The Commission also notes that following the MTAS Conference, when requesting that parties submit revised undertakings, it stated that:⁵⁵⁴

⁵⁵¹ Ibid.

⁵⁵² 2degrees letter, 16 December 2009, paragraph 10.

⁵⁵³ Commerce Commission, *Process for the final stage of the MTAS investigation*, 3 December 2009, page 6.

⁵⁵⁴ Commerce Commission, *Request for revised undertakings*, 9 September 2009, page 2.

‘The Commission also notes the discussion at the MTAS Conference in respect of the possibility of different pricing principles for each of the MTAS services. The Commission encourages access providers to consider submitting separate undertakings for each of the MTAS services.’

848. Notwithstanding the Commission’s comments noted above, Telecom and Vodafone have submitted the Final Undertakings that each provide for a hybrid bill-and-keep pricing principle for SMS and that incorporate SMS, FTM and MTM voice into one undertaking. In relation to their choice not to provide separate undertakings, Telecom and Vodafone have noted:⁵⁵⁵

‘Telecom and Vodafone consider that their undertakings are commercial offers and that the proposed prices are offered only as a package. Their view is that this is common with interconnection arrangements.’

849. The Commission notes that the Final Undertakings offered by Telecom and Vodafone are a package of commercial terms. The Commission has been clear through out the process of the MTAS Investigation that the terms of parties’ undertakings are a matter for them to determine. The Commission has assessed the Final Undertakings as submitted in their totality. Schedule 3A of the Act does not permit the Commission to consider and recommend acceptance of only those elements of the Final Undertakings which it and all access seekers considers acceptable and to insist, as part of its recommendation to the Minister, that the undertakings contain specific terms required by the Commission and access seekers as a condition of recommending acceptance. Further, the Commission does not consider it is appropriate to engage with parties further in relation to alternative proposals, as proposed by 2degrees when withdrawing its undertaking (as noted in paragraph 845 above) prior to finalising this Final Report. The Commission has assessed the Telecom and Vodafone undertakings on that basis in this Final Report.
850. The Commission notes that, if the Minister accepts a recommendation to accept the Final Undertakings, then 2degrees will have a choice over whether and, if so, when it moves from current interconnection agreements to take up the MTAS under the Final Undertakings. If 2degrees elects to request the MTAS under the Final Undertakings, it would be bound by the reciprocity conditions in the Final Undertakings unless it were to reach a commercial agreement (eg a new ICA) with alternative terms. The Commission expects that, in line with Telecom’s and Vodafone’s statements throughout the MTAS Investigation that 2degrees would have a choice as to whether to continue its existing interconnection agreement or move to the Final Undertakings (and , if so, when) Telecom and Vodafone will allow 2degrees an independent choice in this respect (notwithstanding any terms of the ICA which might permit the contrary by Telecom and Vodafone).

Access by other parties to 2degrees’ MTAS

851. If the Minister accepts a recommendation to accept the Final Undertakings, then the Commission notes that would leave 2degrees’ MTAS as the only MTAS that would not be subject to regulation (either by undertakings or pursuant to the Act).⁵⁵⁶ Practically, as 2degrees would have the choice of taking up the MTAS under Telecom and Vodafone’s Final Undertakings, the MTAS that would not be subject to regulation or undertakings would primarily be FTM calls, and internationally originated MTM calls or SMS, to

⁵⁵⁵ Joint Telecom / Vodafone letter, 23 November 2009, page 5.

⁵⁵⁶ Unless the Commission were also to recommend regulation of the MTAS. The option of recommending acceptance of undertakings and regulation is discussed more generally in paragraphs xx to yy below.

2degrees' end users.⁵⁵⁷ As a consequence, the prices and terms on which fixed-only operators obtain the MTAS from 2degrees will be determined under ICAs, as discussed in paragraph 853 below.

852. The Commission notes that the choice to withdraw its undertakings is one that was open to 2degrees under the provisions of Schedule 3A of the Act.
853. The Commission expects in the absence of regulation or undertakings that the provision of MTAS by 2degrees will occur on commercially agreed terms and conditions. 2degrees' have submitted through out the MTAS Investigation that the costs of the MTAS were below the rates being offered by Telecom and Vodafone, although the Commission also acknowledges that 2degrees submitted that there may be grounds for asymmetry in its favour.
854. The Commission considers that 2degrees' ability to commercially negotiate MTRs above those in the Final Undertakings is likely to be limited, as the rate charged by Telecom and Vodafone is likely to be reflected in market expectations for 2degrees' MTRs, and 2degrees may not have sufficient countervailing bargaining power to charge a higher rate, unless they can demonstrate that they have genuinely higher costs than Telecom and Vodafone. Other commercial factors, such as a likely reluctance to have fixed operators charge higher rates for FTM calls to 2degrees' customers, would also be likely to limit 2degrees from charging above cost MTRs.
855. In light of the above points, the Commission expects that the prices 2degrees charges for the MTAS will be broadly consistent with the prices provided for under Telecom and Vodafone's undertakings. The Commission intends to monitor the mobile market in relation to the provision of MTAS by 2degrees and will consider what, if any response, is appropriate to any issues that may arise.

⁵⁵⁷ Termination of FTM, MTM calls and SMS by any subsequent new-entrant MNO would also not be subject to regulation or undertakings.

SECTION VII: NON-CORE PRICE AND NON-PRICE TERMS AND OTHER ISSUES

Introduction

856. This Section addresses the following non-core price and non-price terms:

- minute+second / second+second pricing;
- on-net / off-net price discrimination;
- asymmetric pricing;
- internationally-originated and VOIP-originated calls and SMS;
- reciprocal charges in Telecom's undertakings;
- handover deductions;
- scope of the MTAS Investigation; and
- other non-core price and non-price issues raised in submissions.

857. This section also addresses the following other issues:

- compatibility of undertakings with the access principles set out in the Act;
- compatibility of undertakings with other requirements set out in the Act; and
- Other matters.

Process for addressing reciprocity between other non-core price and non-price issues

858. Following the MTAS Conference, at the invitation of the Commission⁵⁵⁸, 2degrees, Telecom and Vodafone undertook a process of dialogue to address reciprocity issues between their revised undertakings and to address access seekers' submissions on the undertakings. As a result of these discussions, Telecom and Vodafone advised that:⁵⁵⁹

‘Telecom and Vodafone are now aligned on all material non-price issues ... Note, however, that this alignment between Telecom and Vodafone is without prejudice to views the parties may take in any future process, especially a standard terms development process should MTAS be regulated.’

859. Telecom and Vodafone also advised that they had considered the submissions of Access Seekers on their undertakings, and noted that a range of changes had been made to their undertakings, primarily in relation to moving from minute+second to second+second charging, the inclusion of internationally-originated and VOIP-originated calls and per-call

⁵⁵⁸ Letter from Commerce Commission to 2degrees, Telecom and Vodafone, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009.

⁵⁵⁹ Joint letter from Telecom and Vodafone to Dr Ross Patterson, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, page 2.

rounding.⁵⁶⁰ Telecom and Vodafone also advised of a number of changes that they had made in relation to other more detailed submissions.⁵⁶¹

860. In its correspondence with the Commission regarding the process to address reciprocity, 2degrees' representative stated:⁵⁶²

'It appears that all parties are prepared to be pragmatic about non-price terms. Assuming that acceptable price terms could have been reached, the parties are either prepared to amend undertakings or treat them as non-material. From 2degrees perspective that is unsurprising, and it has consistently signalled that the price terms are by far the most significant issue.'

861. However, 2degrees subsequently advised that:⁵⁶³

'the positions on non-price terms in [the reciprocity] process [were] without prejudice to any future process.'

862. This Section summarises the outcome of the discussions between 2degrees, Telecom and Vodafone, including any changes to non-core price and non-price terms in the Final Undertakings submitted by Telecom and Vodafone, and being considered in this Final Report. As 2degrees has withdrawn all undertakings, no non-core price and non-price terms analysis has been conducted with respect to 2degrees' previous undertakings. The outcome of these discussions has addressed a number of the concerns expressed in the Commission's preliminary views and this Section also indicates the Commission's views on these outcomes.

863. While the qualifying statements, noted in paragraphs 0 to 861 above, from 2degrees, Telecom and Vodafone are noted, the Commission considers that these terms and conditions would represent a reasonable starting point in an STD process in relation to non-price matters, should regulation of the MTAS occur such that any Standard Terms Proposal would likely be expedited.

864. Where Telecom or Vodafone have changed their positions in the Final Undertakings, and this substantially responds to the Commission's or Access Seekers' concerns, Telecom or Vodafone's original and final positions are noted, but earlier submissions from Telecom or Vodafone on these issues are not discussed in detail either in this Section or in Appendix 6. However, comments from other submitters supporting a change from Telecom or Vodafone's original position, or alternative approaches, have been included.

865. In relation to those issues where Telecom and Vodafone has not made changes to their Final Undertakings, the Commission does not consider that these issues materially affect its assessment of whether the Final Undertakings should be recommended for acceptance. Were the MTAS to become regulated services in the future, the Commission would need to consider these issues further at the time of any STD process. In relation to these issues, Appendix 6 presents a summary of the Commission's preliminary views, followed by summaries of submissions, discussion of these issues at the MTAS Conference and submissions on the revised undertakings provided after the MTAS Conference.

⁵⁶⁰ Ibid, pages 2-3.

⁵⁶¹ Ibid, pages 5-7.

⁵⁶² Email from Andy Matthews to Commerce Commission, *Report on discussions on undertakings*, 20 November 2009.

⁵⁶³ 2degrees, *MTAS – Undertakings – Telecom's letter of 23 November 2009*, 24 November 2009, page 4, para 20.

Minute+second / second+second pricing

866. Initially both Telecom and Vodafone's undertakings provided for a minute+second pricing approach.
867. In the Draft Report the Commission noted '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'.⁵⁶⁴ Recognising that it had previously allowed minimum call durations, to recover call set-up costs, the Commission sought submissions on 'the significance and magnitude of call set up charges for mobile networks and parties preferred approach to recovering call set up costs'.⁵⁶⁵
868. 2degrees⁵⁶⁶, CallPlus, Woosh and Kordia⁵⁶⁷, submitted that minute+second pricing was contrary to international best practice and should not be permitted.
869. Subsequently the Commission noted that 'that second + second pricing is the predominant method of pricing in other jurisdictions'⁵⁶⁸ and indicated that 'an adjustment would be required for any minute+second pricing structure in any undertakings'.⁵⁶⁹
870. Telecom and Vodafone's Final Undertakings assessed in this Final Report provide for second+second billing effective from the Rounding Date for Telecom (as discussed in paragraphs 92 and 93)⁵⁷⁰ and effective immediately for Vodafone.⁵⁷¹ The Commission notes that the MTRs charged under the Telecom 11 February 2010 Undertaking prior to the Rounding Date are comparable to those that would result using the scaling up proposed by the Commission to convert minute+second MTRs to second+second MTRs in this Final Report, notwithstanding the actual charging methodology in the Telecom Undertaking not changing until the Rounding Date.
871. The Commission notes that both Telecom and Vodafone have effectively maintained the current minute+second rates in the Telecom Deed and Vodafone Deed until 30 September 2010, applying an uplift of 23% to these rates to convert these rates to second+second rates. As a consequence, there are no differences between the prices in the Deeds and the Final Undertakings until 1 October 2010.

⁵⁶⁴ Commerce Commission, Draft Report, page 195, para 889.

⁵⁶⁵ Commerce Commission, Draft Report, page 195, para 891 and page 205, para 949.

⁵⁶⁶ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, page 62, para 4.2.

⁵⁶⁷ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 4, section 3.1; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, paras 1.18-1.20 and pages 11-15, section 9.

⁵⁶⁸ Commerce Commission, *Transcript of Public Meeting re Clarification of Matters for Submission of Revised Undertakings*, 23 September 2009, page 11.

⁵⁶⁹ Commerce Commission, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009, page 4.

⁵⁷⁰ Telecom, *Undertaking in favour of the Commerce Commission under Schedule 3A of the Telecommunications Act 2001: Annexure 1 – Mobile Termination Terms: Schedule 4 – Charges*, 11 February 2010, page 52, clause 1.2. and page 53, clause 2.2(b).

⁵⁷¹ Vodafone, *Undertaking to the Commerce Commission under Schedule 3A in respect of the Vodafone Mobile Terminations Access Services*, 16 December 2009, page 9, Schedule 2 – Pricing: Vodafone Mobile Termination Access Services, note 2.

872. In conjunction with moving to second+second charging, Telecom⁵⁷² and Vodafone⁵⁷³ have removed the provisions whereby no charge is made for calls with a duration of less than two seconds. The Commission notes that this will have an impact on the costs to Access Seekers of the MTAS, however, the Commission does not consider that this impact is sufficiently material to substantially affect its assessment of whether the Final Undertakings should be recommended for acceptance.
873. As both Telecom and Vodafone have adopted second+second pricing (or equivalent prices) in their Final Undertakings assessed in this Final Report, no adjustment was necessary to the rates provided in those undertakings for comparability purposes.
874. The Commission considers that the amendments to Telecom and Vodafone's Final Undertakings to adopt second+second pricing address the Commission's concerns in relation to minute+second charging.

On-net / off-net price discrimination

875. In the Draft Report the Commission's preliminary view was that:⁵⁷⁴

‘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 to ensure a competitive market in the interests of the long-term benefits of end-users’.

876. The Commission notes that 2degrees have submitted that there should be some form of prohibition related to on-net / off-net price discrimination or monitoring of on-net retail prices.⁵⁷⁵ CallPlus, Woosh and Kordia⁵⁷⁶ submitted that protections against margin squeeze were also necessary. Vodafone⁵⁷⁷ submitted that such prohibitions were not appropriate and Telecom⁵⁷⁸ submitted that such prohibitions were beyond the scope of the Commission's jurisdiction and the purpose of the Act ie regulating wholesale supply between service providers.
877. The Commission has concluded that where prices are reflective of cost and barriers to efficient entry and expansion are addressed, non-discrimination provisions with respect to on-net and off-net pricing are not required as part of the factual of regulation.
878. Telecom and Vodafone have not included non-discrimination provisions in the Final Undertakings or in their undertakings at any point in time during the MTAS Investigation.

⁵⁷² See, for example, Telecom, *Annexure 1 – Mobile Termination Terms*, 2 October 2009, page 52, Schedule 4 – Charges, clause 2.2(b).

⁵⁷³ See, for example, Vodafone, *Undertaking to the Commerce Commission under Schedule 3A in respect of the Vodafone Mobile Terminations Access Services*, 16 December 2009, page 89, Annex 1 to Schedule 4 – Service Specific Terms and Conditions: Vodafone Mobile Termination Access Services, clause 1, definition of Chargeable FTM Call.

⁵⁷⁴ Commerce Commission, Draft Report, page 197, para 897.

⁵⁷⁵ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, page 4, para 11.

⁵⁷⁶ Wigley & Company submission on behalf of CallPlus, Woosh and Kordia, *MTAS: Submissions on the Fixed and Integrated Operators' data – Restricted Information version*, page 3, paras 15, 17 and 18.

⁵⁷⁷ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services – Submission*, 28 July 2009, page 12, para 48.

⁵⁷⁸ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009, page 26, para 107. See also, Telecom, *Submission accompanying revised undertaking*, 6 May 2009, page 17, para 79.

879. The Commission has concluded that the absence from the Final Undertakings of any non-discrimination provisions between on-net and off-net pricing does not raise any material issues in relation to the assessment of the Final Undertakings.
880. The Commission notes, however, that were implied average on-net retail prices to decrease more rapidly than the 5%pa that the Commission has assumed (in Figure 24 above), then it is possible that a barrier to efficient entry and expansion in the mobile services market could re-emerge to the extent that a small MNO is not able to compete effectively. As a part of its monitoring programme, the Commission intends to monitor the mobile market to ensure such a barrier to efficient entry and expansion does not re-emerge. If monitoring indicates any issues in the mobile market, such as a reduction in implied average on-net retail prices to the extent that such a barrier re-emerged, then the Commission will consider whether further regulatory attention is warranted.

Asymmetric pricing

881. In the Draft Report the Commission sought submissions on whether there was ‘evidence of differing cost structures for different operators which could be grounds for asymmetric pricing, and the views of interested parties over the timeframe for any asymmetric pricing to be phased out’.⁵⁷⁹
882. 2degrees submitted⁵⁸⁰ that cost-based reasons and network externalities may justify asymmetry in its favour for up to five years. However 2degrees’ primary submission for the majority of the MTAS Investigation has been for BAK pricing, which asymmetric pricing would not be consistent with. The final undertakings submitted by 2degrees⁵⁸¹, although subsequently withdrawn, did not include asymmetric pricing, although 2degrees did note that ‘glide-paths were designed in other jurisdictions to provide asymmetric prices in a new entrants’ favour.’⁵⁸²
883. In its letter requesting final undertakings be provided, the Commission stated:⁵⁸³
- ‘... its preliminary view that symmetry in the price terms and services covered by each of the Revised Undertakings was strongly desirable to avoid the potential distortions and inefficiencies associated with asymmetric rates.’
884. Telecom and Vodafone have not provided for asymmetric pricing in their undertakings at any point in time.
885. 2degrees submitted, when withdrawing their undertakings, that:⁵⁸⁴
- ‘If the market is distorted in favour of large networks through above cost termination rates then, in order to minimise those distortions it would be appropriate to allow a new entrant to enjoy termination rates at a higher level to the incumbents.’

⁵⁷⁹ Commerce Commission, Draft Report, page 205, para 950. See also pages 197-198, paras 898-902.

⁵⁸⁰ 2degrees submission on Draft Report, page 62, para 4.3.

⁵⁸¹ 2degrees, *Undertakings submission*, 2 October 2009, page 9, para 10.

⁵⁸² *Ibid.* See also Haucup, *A Short Note on the Philosophy and Economic Rationale Underlying “Glide-paths” for the Regulation of Mobile Termination Rates*, 16 October 2009.

⁵⁸³ Commerce Commission, *Process for the final stage of the MTAS investigation*, 3 December 2009, page 1. This letter reiterated the Commission’s view on symmetry expressed in its earlier letter of 9 November 2009.

⁵⁸⁴ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, page 3, para 11.

886. The Commission considers that different cost structures could potentially justify asymmetries between different operators, although there would need to be careful consideration of the impacts that asymmetric pricing may cause more generally in the mobile market. The Commission has not, however, been provided with any specific evidence of different cost structures in New Zealand that enable it to reach a conclusion regarding asymmetric rates.
887. Asymmetric prices have, therefore, not been included in the factual.
888. In addition, as the Commission does not have any undertakings before it providing for asymmetric rates, it is not required to reach a final view on whether or not these would be justified. Were the MTAS to become regulated services in the future, the Commission would need to consider further at that time whether asymmetric rates were required as part of an STD process.

Internationally-originated and VOIP-originated calls and SMS

889. Telecom's initial undertakings excluded both internationally-originated and VOIP-originated calls, while Vodafone's initial undertakings excluded internationally-originated calls.
890. In the Draft Report the Commission's preliminary view was that 'the service description for the MTAS should include internationally-originated and VOIP-originated calls and SMS, where these are handed over at a MSC in New Zealand'.⁵⁸⁵
891. TelstraClear⁵⁸⁶ and CallPlus, Kordia and Woosh⁵⁸⁷ all submitted that there should be no differentiation between call types and supported the inclusion of internationally-originated and VOIP-originated calls in the MTAS service description.
892. Both Telecom and Vodafone⁵⁸⁸ have confirmed that internationally-originated and VOIP-originated calls and SMS, handed over at a MSC in New Zealand, will be covered by their undertakings, and advised that they would make amendments to those their Final Undertakings accordingly, stating:⁵⁸⁹

'Telecom has agreed to include **internationally-originated traffic (handed over in NZ)** within the scope of its undertaking in response to Access Seeker concerns. Vodafone and 2degrees (we understand) have confirmed that they already treat **all traffic handed over in NZ** in the same way. Vodafone has agreed to make this explicit in its undertaking terms.' (emphasis added)

893. The Commission considers that the amendments to Telecom and Vodafone's Final Undertakings address the Commission's concerns in relation to the scope of the MTAS including internationally-originated and VOIP-originated calls.

⁵⁸⁵ Commerce Commission, Draft Report, page 201, para 923.

⁵⁸⁶ TelstraClear, *Schedule 3 investigation into regulation of mobile termination: Submission on Commerce Commission Draft Report*, 28 July 2009, page 8, paras 26 and 28.

⁵⁸⁷ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 5, section 3.2; and, Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1.

⁵⁸⁸ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, pages 2 and 5.

⁵⁸⁹ *Ibid*, page 2.

894. The Commission notes, however, that the definitions of Text Message do not appear, on their face, to expressly apply to internationally-originated SMS in Telecom and Vodafone's Final Undertakings.⁵⁹⁰
895. The Commission considers that the underlying costs of terminating internationally-originated SMS that are handed over at a Text Message Handover Point⁵⁹¹ or Text Message Termination Service Delivery Point⁵⁹² in New Zealand should be broadly the same as the costs of terminating domestically-originated SMS.
896. In light of Telecom and Vodafone's comments that their undertakings would be amended to include internationally-originated traffic handed over in New Zealand, the Commission has interpreted the Final Undertakings to apply to internationally-originated SMS and expects that internationally-originated SMS will be treated and priced consistent with domestically-originated SMS.

Reciprocal charges in Telecom's undertakings

897. Telecom's undertakings provide for two additional charges that an Access Seeker must pay Telecom, which Telecom does not reciprocally have to pay an Access Seeker.⁵⁹³ Telecom have submitted that these charges reflected the 'one-off costs for building all the services and interfaces necessary to establish interconnection with a new network operator' and were 'set to cover the costs of establishing interconnection'.⁵⁹⁴
898. In the Draft Report the Commission's preliminary view was 'that the reason provided by Telecom [for non-reciprocal charges for interconnection set-up costs], being a difference in costs between Telecom as an access provider and the likely costs of an access seeker in interconnecting, appears reasonable' and the Commission invited 'submissions on the reasonableness of these non-reciprocal charges provided for under the Telecom undertaking'.⁵⁹⁵
899. 2degrees submission questioned the need for these charges⁵⁹⁶, while CallPlus, Kordia and Woosh submitted that costs should lie where they fall or where caused.⁵⁹⁷

⁵⁹⁰ In the case of Telecom's Final Undertaking, the definition of Text Message includes a requirement that the SMS 'originates in the Originating Carrier's Network in New Zealand' – see, Telecom, *Annexure 1: Appendix A – Text Message Service*, page 63, clause 1.1. In the case of Vodafone's Final Undertaking, the definition of Text Message requires that the SMS 'originates (i) in a network in New Zealand operated by the Access Seeker; or (ii) from a subscriber of the Access Seeker ... who is roaming in a network operated by a person from who the Access Seeker receives that message pursuant to an agreement for roaming services' - Vodafone, *Annex 3 to Schedule 4: Service Specific Terms and Conditions – Vodafone Text Message Termination Service*, 16 December 2009, page 98, clause 1.

⁵⁹¹ Telecom, *Annexure 1: Appendix A – Text Message Service*, page 64, clause 1.1.

⁵⁹² Vodafone, *Annex 3 to Schedule 4: Service Specific Terms and Conditions – Vodafone Text Message Termination Service*, 16 December 2009, page 98, clause 1.

⁵⁹³ See Commerce Commission, *Comments on undertakings received in relation to the MTAS Investigation*, 25 March 2009, page 21.

⁵⁹⁴ Telecom, *Submission accompanying revised undertaking*, 6 May 2009, page 19, paras 89 and 90.

⁵⁹⁵ Commerce Commission, Draft Report, pages 201 and 202, paras 926 and 927.

⁵⁹⁶ 2degrees, *Undertakings Submission*, 2 October 2009, page 12, para 5.1.

⁵⁹⁷ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 8, section 3.7; and, Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1.

900. Telecom and Vodafone submitted that the set-up charges provided in their undertakings were appropriate, noting that these charges only apply to new interconnects. In addition, Telecom and Vodafone have amended their revised undertakings to provide for access to their MSCs and co-location at their MSCs. Telecom have provided for co-location at additional prices based on the UCLL Co-location STD, with reciprocal provisions for Access Seekers, while Vodafone have provided a flat-rate charge for co-location, which appears to be broadly comparable to the Telecom prices.⁵⁹⁸
901. The Commission considers, in the context of assessing the acceptability of Telecom and Vodafone's Final Undertakings, that the non-reciprocal charges in Telecom's undertaking, where they apply, and the provisions for access to and co-location at Telecom, Vodafone and Access Seekers' MSCs, appear reasonable.

Handover points / transit costs

902. Telecom's initial undertakings provided, as the default option, for handover of the MTAS from the Access Seeker to Telecom at a handover point in Telecom's premises in the relevant Major Local Interconnect Calling Area (LICA), of which there are 24, or one of 78 associated Minor LICAs. Telecom was to handover the MTAS to Access Seekers on the Access Seeker's premises.⁵⁹⁹
903. Telecom confirmed that the effect of the handover provisions in its initial undertaking was that:⁶⁰⁰

'if [an Access Seeker] chooses not to have a handover point in the LICA Group where a Telecom fixed line customer originates a call to [an Access Seeker's customer], Telecom will transport that call to wherever [the Access Seeker] does have a point of interconnection (POI) and deduct a transport fee of 3.5 cents per minute from the MTR to compensate Telecom for the use of its national transport network. If [the Access Seeker] chooses to pick up that call in the LICA Group where it originates, then there is no transport charge deducted from the MTR paid to [the Access Seeker].'

904. Telecom also noted that:⁶⁰¹

'The current model for handover of calls from FTM networks has that handover taking place at fixed network POIs. This provides a saving in transport costs from the fixed POI to the mobile switching centre (MSC) in relation to any FTM calls originating in LICA Groups without a MSC. Telecom estimates that this saves fixed line operators about 0.47 cents per minute relative to a MSC handover structure.'

905. In the Draft Report the Commission noted that it had proposed a service description in relation to 'Termination (and its associated functions) on a **cellular mobile telephone network** ...'.⁶⁰² The Commission further noted, in relation to handover arrangements, that.⁶⁰³

⁵⁹⁸ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, pages 5 and 6. See also Telecom, *Submission on undertakings submitted 2 October 2009*, 16 October 2009, pages 9-10, para 35(a).

⁵⁹⁹ Telecom, *Annexure 1 – Mobile Termination Terms*, 12 January 2009, page 21, Clause 10.1.

⁶⁰⁰ Telecom, *Submission accompanying revised undertaking*, 6 May 2009, pages 13-14, para 60.

⁶⁰¹ *Ibid*, page 14, para 62.

⁶⁰² Commerce Commission, *Draft Report*, page 202, para 932.

⁶⁰³ *Ibid*, page 203, para 933.

‘Inherent in [the proposed service description] is that the access seeker will handover calls and SMS at a MSC. Accordingly, the Commission’s preliminary view is that the handover deductions included by Telecom in their undertaking is not appropriate’.

906. Submissions from Vodafone⁶⁰⁴ and CallPlus, Woosh and Kordia (by implication)⁶⁰⁵ suggested that the market for commercial transport services was competitive and it would be reasonable to provide for MSC handover.

907. Telecom have amended their revised undertakings to:⁶⁰⁶

‘[remove] the 3.5c origination charge that was incurred where a mobile network operator did not have a local point of interconnect for Telecom to hand over where a call originated on Telecom’s fixed network. Our Revised Undertaking now requires Telecom to hand over FTM traffic at the destination carrier’s MSC without deduction for the transport component. This also means that fixed network carriers whose end users call Telecom’s mobile network will be obliged to get those calls to the Telecom MSC for handover, or purchase a commercial transport service to carry the calls from their local point of handover to the Telecom MSC.’

908. The Commission notes that this amendment by Telecom provides for a common handover arrangement for the MTAS at MSCs, and acknowledges that as a consequence fixed-network operators will be required to transport FTM calls to an Access Provider’s MSC. The Commission considers that this is a reasonable approach to handover arrangements, but intends to monitor the market for commercial transport services to ensure that prices and other terms and conditions for this service are competitive.

Scope of the MTAS Investigation

909. In the Draft Report, the Commission proposed a service description for the MTAS, as part of the proposed regulatory change recommended by the Commission, that included:⁶⁰⁷

‘Termination (and its associated functions) on a cellular mobile telephone network of:

- voice calls originating on a fixed telephone network;
- voice calls originating on another cellular mobile telephone network; and
- short-message-service (“SMS”) originating on another cellular mobile telephone network.’

910. CallPlus, Woosh and Kordia⁶⁰⁸, and TUANZ⁶⁰⁹ submitted that the scope of the MTAS Investigation and the services being considered for regulation should include voice calls

⁶⁰⁴ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services Cross-submission*, 18 August 2009, page 74, para 273.

⁶⁰⁵ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 7, section 3.6; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, para 1.18.

⁶⁰⁶ Telecom, *Submission accompanying revised undertaking*, 2 October 2009, page 9, para 29.

⁶⁰⁷ Commerce Commission, *Draft Report*, 30 June 2009, page 208, para 959.

⁶⁰⁸ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 6, section 3.4; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, para 1.18.

⁶⁰⁹ TUANZ, *Commerce Commission Draft Report on Whether Mobile Termination Access Services Should Become Designated or Specified Services: Submission from TUANZ*, 28 July 2009, page 2.

originating on a mobile network to toll-free numbers. Linktel⁶¹⁰ submitted that the scope should include calling card services from mobile phones.

911. In the preparation for the MTAS Conference, the Commission indicated that:⁶¹¹

‘As mobile origination (toll-free) and calling card services were not included in the scope of the MTAS Investigation, they will not be covered in the Commission’s questions.’

912. At the MTAS Conference, CallPlus and TUANZ reiterated their earlier submissions that the scope of services being considered should include voice calls originating on a mobile network to toll-free numbers. CallPlus also noted that ‘Vodafone haven’t actually been charging a differential rate for toll free traffic compared with fixed to mobile, however Telecom have’.⁶¹²

913. At the MTAS Conference, the Commission indicated that additional services could be included within the scope of undertakings, notwithstanding the fact that they were outside the scope of the MTAS Investigation.⁶¹³

914. Neither Telecom nor Vodafone have included voice calls originating on a mobile network to toll-free numbers or calling card services within the scope of their undertakings at any stage during the MTAS Investigation.

915. The Commission does not consider that these categories of calls should be included in the scope of the MTAS Investigation, it considers that the underlying costs of providing services related to voice calls originating on a mobile network to toll-free numbers and calling card services should be broadly the same as the costs of providing the MTAS. The Commission does not, in principle, see any reason why the price for these additional services should be different to the price for the MTAS. The Commission intends to monitor the market for these additional services to ensure that prices and other terms and conditions for these services are competitive.

916. The Commission notes that in the Draft Report it also discussed whether multi-media messages (MMS) or data services should be considered within the scope of the MTAS Investigation. The Commission’s preliminary view was that ‘both the data services and MMS markets are not appropriate for inclusion in the factual.’⁶¹⁴

917. No submissions were received in relation to the inclusion of MMS or data services within the scope of the MTAS.

918. The Commission concludes that MMS and data services should not be included within the scope of the MTAS for the purposes of the factual. The Commission intends (as noted in the Draft Report⁶¹⁵) to monitor the operation of the retail mobile services market in relation

⁶¹⁰ Linktel, *RE: Schedule 3 Investigation into mobile termination access services (MTAS) – Review of classification of information under the MTAS Confidentiality Order and request for information about commercial interconnection agreements*, 24 July 2009, pages 1 and 2.

⁶¹¹ Commerce Commission, *MTAS Investigation Conference – Agenda and issues for discussion at the Conference*, 26 August 2009, page 11.

⁶¹² Commerce Commission, *MTAS Conference Transcript – Day 2*, 3 September 2009, pages 217-218.

⁶¹³ *Ibid*, page 218.

⁶¹⁴ Commerce Commission, *Draft Report*, 30 June 2009, page 77, para 250.

⁶¹⁵ *Ibid*, page 78, para 251.

to MMS and data services to identify whether there are any signs of market failure that would suggest it should reconsider this conclusion.

Other non-core price and non-price issues raised in submissions

919. A wide range of non-core price and non-price issues were raised in submissions during the MTAS Investigation, including in submissions on the initial undertakings, submissions on the Draft Report and submissions on the 2 October 2009 undertakings.

920. The Commission requested in its letter of 9 November 2009 that 2degrees, Telecom and Vodafone.⁶¹⁶

‘consider the submissions of Access Seekers on their Revised Undertakings and identify how they have taken those submissions into account [having earlier in that letter noted that] the non-price terms that apply to Access Seekers would need to be fair and balanced, taking into account the submissions of Access Seekers on the non-price terms.’

921. Telecom and Vodafone, in their joint letter of 23 November 2009, noted that:⁶¹⁷

‘Telecom and Vodafone are now aligned on all material non-price issues, as set out in the attached table.’

922. While the Commission notes that Telecom and Vodafone did not directly address all submissions of Access Seekers, Telecom and Vodafone have addressed the material non-price issues that had been identified by the Commission in the Draft Report, as discussed in this Section VII. The Commission further notes that the Final Undertakings offered by the Commission are a package of commercial terms, which the Commission is required to assess in their totality.

923. The Commission does not consider that there are any material issues in relation to the non-core price and non-price terms that would materially affect the Commission’s assessment of the acceptability of the Final Undertakings as a package of commercial terms offered as a commercial alternative to regulation. The Commission notes that this conclusion should not be taken to express a view on the appropriateness of the non-core price and non-price terms in the context of any STD process which might be undertaken were the MTAS to become a regulated service under the Act.

Compatibility of undertakings with the access principles set out in the Act

924. As noted in para 35, under Clause 4(4)(b) of Schedule 3A of the Act, the Commission must not make a recommendation in its Final Report that undertakings are capable of acceptance unless the Commission is satisfied that the undertaking complies with the standard access principles set out in clause 5 of Schedule 1 of the Act and any limits on those standard access principles set out in clause 6 of that schedule.

925. The standard access principles and limits on the standard access principles are:

5 Standard access principles for designated access services and specified services

⁶¹⁶ Commerce Commission, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009, page, 2

⁶¹⁷ Vodafone/Telecom, *Process to address alignment of MTAS undertakings*, 23 November 2009, page 2

The following standard access principles apply to designated access services and specified services:

- (a) *principle 1*: the access provider must provide the service to the access seeker in a timely manner:
- (b) *principle 2*: the service must be supplied to a standard that is consistent with international best practice:
- (c) *principle 3*: the access provider must provide the service on terms and conditions (excluding price) that are consistent with those terms and conditions on which the access provider provides the service to itself:
- (d) *principle 4*: the access provider must, if requested, provide an access seeker with information about a designated access service or specified service at the same level of detail, and within the same time frame, that the access provider would provide that information had it been requested by one of its own business units.

6 Limits on application of standard access principles set out in clause 5

- (1) Principles 1 to 4 set out in clause 5 are limited by the following factors:
 - (a) reasonable technical and operational practicability having regard to the access provider's network:
 - (b) network security and safety:
 - (c) existing legal duties on the access provider to provide a defined level of service to users of the service:
 - (d) the inability, or likely inability, of the access seeker to comply with any reasonable conditions on which the service is supplied:
 - (e) any request for a lesser standard of service from an access seeker.
- (2) Principle 4 set out in clause 5—
 - (a) does not extend to any information about identifiable individual customers of the access provider; and
 - (b) is subject to the requirement that any confidential information provided to the access seeker, in accordance with that principle, must be kept confidential to that access seeker.

926. In the Draft Report the Commission's preliminary view was "that Telecom's and Vodafone's undertaking in substance are compliant with the standard access principles and the limits on those principles in the Act."⁶¹⁸ Having previously determined that 2degrees initial undertakings were not capable of being recommended for acceptance, the Commission invited "2degrees, if it chooses to submit revised undertakings, to provide an assurance that 2degrees' undertakings comply with the standard access principles and the limits on those principles in the Act, and comments on how each of the standard access principles is met."⁶¹⁹

⁶¹⁸ Commerce Commission, Draft Report, page 204, para 941.

⁶¹⁹ Commerce Commission, Draft Report, page 204, para 942.

927. Telecom⁶²⁰ and Vodafone⁶²¹ have both provided assurances that they consider their undertakings comply with the standard access principles and the limits on those principles in the Act. The standard access principles and the limits on those principles in the Act are explicitly reflected in the Telecom⁶²² and Vodafone⁶²³ undertakings. Vodafone did, however, note that they ‘still [consider] that it is not necessary to expressly set out the standard access principles in its undertakings’.⁶²⁴
928. The Commission has concluded that the Final Undertakings are in substance compliant with the standard access principles and the limits on those principles in the Act. The Commission notes that issues regarding whether the undertakings were consistent with international best practice were raised, for example, in relation to the use of minute+second pricing, which has now been addressed as discussed in paragraphs 866 to 873 above.

Compatibility of undertakings with other requirements set out in the Act

929. Clause 4(a) of Schedule 3A of the Act provides that the Commission must not make a recommendation in its Final Report that undertakings should be accepted unless the Commission is satisfied that the undertaking complies with the Act and any regulation made under the Act. The specific procedural requirements for the format and content of undertakings are set out in clause 5(1) of Schedule 3A, which states:

5 Requirements for undertaking

- (1) An undertaking must—
- (a) be signed or executed by the relevant access provider; and
 - (b) specify the terms and conditions of the supply of the service; and
 - (c) specify the date by which those terms or conditions must be complied with by the relevant access provider; and
 - (d) specify a mechanism for the resolution by the Commission or a suitably qualified and experienced independent person of any issues or disputes that arise after the undertaking is registered; and
 - (e) provide for any other prescribed matters.

930. There are currently no regulations that have been promulgated under the Act that are relevant to the assessment of undertakings.
931. The Commission considers that the Final Undertakings comply with the Act and in particular meet all requirements set out in clause 5(1) of Schedule 3A.

⁶²⁰ Telecom, *Submission accompanying revised undertakings*, 6 May 2009, page 20, para 92.

⁶²¹ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, pages 65-66, paras 215-218.

⁶²² Telecom, *Annexure 1 – Mobile termination terms*, 16 December 2009, pages 13-14, clauses 2.3-2.5.

⁶²³ Vodafone, *Undertaking to the Commerce Commission under Schedule 3A in respect of the Vodafone Mobile Termination Access Services*, 16 December 2009, page 28, clause 2.24.

⁶²⁴ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, page 6.

Other matters

Duration of undertakings

932. The period of registration of an undertaking is provided for in clause 7 of Schedule 3A of the Act, which states:

7 Expiry of registration of undertaking

- (1) The registration of an undertaking is effective for—
 - (a) a period of 5 years from the date of registration; ...
- (3) Despite subclause (1), the Commission may make a recommendation in the final report to the Minister that, having regard to the matters specified in subclause (4), the registration of an undertaking should expire earlier than the 5-year period referred to in subclause (1).
- (4) The matters are—
 - (a) the reasonable needs of potential access seekers; and
 - (b) the commercial lifetime of the service delivery technology concerned; and
 - (c) any other factors that the Commission thinks relevant.”

933. The Commission notes that in its comments on the initial undertakings it stated:⁶²⁵

‘The Commission’s preliminary view is that the appropriate length of time that regulation or an undertaking should set prices for needs to reflect a balance between providing certainty and recognising that the mobile telephony markets are subject to rapid technological change. The Commission’s preliminary view is that that this time period is less than five years and is likely to be around three years.’

934. Vodafone submitted⁶²⁶ that the Commission had not provided sufficient reasons to depart from the default provision in the Act that undertakings should be registered for a period of 5 years and that to do so would reduce the certainty for access providers in relation to the MTRs, with consequential impacts on investment incentives.

935. Telecom noted in its comments on the revised undertakings that:⁶²⁷

‘Both the CBA and Vodafone’s undertaking should reflect only the effects on the market for five years. This is the general duration of an undertaking under the Telecommunications Act. We note that there is the provision for an undertaking to be provided for a longer or shorter timeframe under the Act in certain circumstances. However, as a timeframe of greater than five years has not been explored in the process to date, we do not consider it helpful to look beyond the five year term at this stage.’

936. No other submissions were received on the length of time that an undertaking should be in place, prior to the 16 December 2009 submission of revised undertakings, when Vodafone submitted that:⁶²⁸

⁶²⁵ Commerce Commission, *Comments on undertakings received in relation to the MTAS Investigation*, 25 March 2009, page 3.

⁶²⁶ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, May 2009, pages 67-69, paras 221-223.

⁶²⁷ Telecom, *Submission on Undertakings Submitted 2 October 2009*, 16 October 2009, page 8, para 30.

‘... we would greatly appreciate assurances from the Commission that it intends that this undertaking, if accepted, will last until the end of its term. If the Commission cannot offer assurances that this undertaking will last for its term, it would be helpful if it could specify as precisely as it can what conditions would cause it to reinvestigate MTRs again.’

937. Also at that time, 2degrees submitted that the Commission should:⁶²⁹

‘Consider acceptance {of the Final Undertakings} for a period of no more than 3 years’.

938. The Commission notes that it could under clause 7 of Schedule 3A recommend acceptance of the Final Undertakings for a period of less than 5 years. The undertakings submitted by Telecom and Vodafone through out the MTAS Investigation have, however, generally been for a period of five years.

939. The Commission concludes that the five year period provided in the Final Undertakings is reasonable given the need to recognise investment incentives, and recognising the fact that the Final Undertakings are offered as a commercial package, as an alternative to regulation.

940. The Commission does not, however, consider it appropriate to provide the assurance or specification requested by Vodafone in its 16 December 2009 letter regarding the exercise of the Commission’s powers during the term of the Final Undertakings. The Commission is required to exercise its powers in light of sections 18 and 19 of the Act by reference to circumstances applicable in the telecommunications market at any given time. It would not be appropriate for the Commission to fetter its powers (even indirectly) to investigate any legitimate competition concern with respect to the MTAS during the term of the Final Undertakings.

2degrees proposal to combine recommending regulation with accepting the Final Undertakings

941. 2degrees also submitted in its it letter to the Commission of 16 December 2009 that the Commission should:⁶³⁰

‘Recommend designation of Mobile Termination Access Services in conjunction with Voluntary Undertakings as contemplated by the Act.’

942. The Commission does not consider it would be appropriate to recommend regulation of the MTAS and acceptance of the Final Undertakings, as proposed by 2degrees. The Final Undertakings are likely to apply to a significant majority of the MTAS markets (ie greater than 90 per cent of off-net traffic based on current traffic). If these undertakings are likely to deliver sufficient benefits to be capable of being recommended for acceptance, the Commission does not consider that there would not be significant benefits from recommending both designation of the MTAS and acceptance of the undertakings.

943. Further, as discussed in paragraphs 851 to 855 above, the Commission considers that the prices 2degrees charges for the MTAS, which will apply to the minority of the MTAS markets, are likely to be broadly consistent with the prices provided for under Telecom and Vodafone’s undertakings. The Commission also intends to monitor the mobile market in relation to the provision of MTAS by 2degrees and will consider what, if any response, is appropriate to any issues that may arise.

⁶²⁸ Vodafone, *Re: Process for the final stage of the MTAS investigation*, 16 December 2009, page 3.

⁶²⁹ 2degrees 16 December letter, page 4, para 10.

⁶³⁰ 2degrees 16 December letter, page 4, para 10.

944. In these circumstances, the Commission has concluded that recommending regulation either of all Access Providers or of some Access Providers only (eg 2degrees, given that it has withdrawn all undertakings previously submitted), in conjunction with accepting undertakings, would not be appropriate.

Consideration of deferral of the Minister's decision

945. The Commission also notes that while Schedule 3 and Schedule 3A of the Act provide that the Commission can recommend that the Minister defers a decision on the proposed alteration in certain cases, the Commission does not consider that recommending deferral would be appropriate for this investigation.
946. The Commission considers that a recommendation that the Minister defer a decision on a proposed regulatory change should be considered on a case by case basis. For example, it may be appropriate in some cases to recommend deferral where an undertaking capable of being recommended for acceptance has not been developed by the time of the completion of the Final Report. In the case of the MTAS Investigation, there has been a significant period of time provided for undertakings to be developed and clear indications of preliminary views have been provided by the Commission through-out the process (as detailed in Appendix One).
947. In the context of the MTAS Investigation, the Commission has concluded that recommendations can be made based on the Final Undertakings before the Commission and a deferral would not alter the Recommendations in this Final Report.

Conclusions

948. The Final Undertakings have been offered as a package of commercial terms and conditions by Telecom and Vodafone as an alternative to regulation.
949. The Commission does not consider that there are any material issues in relation to the non-core price and non-price terms that would materially affect the Commission's assessment of the acceptability of the Final Undertakings as a package of commercial terms offered as an alternative to regulation.
950. This conclusion should not be taken as the Commission's view on the appropriateness of the non-core price and non-price terms in the context of any STD process which might be undertaken were the MTAS to become a regulated service under the Act. Issues that may be considered further in the context of any STD process include:
- whether asymmetric rates are justified in the context of a STD; and
 - whether the non-core price and non-price terms in the Final Undertakings are appropriate in the context of a STD.
951. The Commission considers that the amendments to Telecom and Vodafone's Final Undertakings address the Commission's concerns from the Draft Report in relation to:
- the adoption of second+second pricing in the Final Undertakings;

- the inclusion of internationally-originated and VOIP-originated calls, handed over at a MSC in New Zealand;
- the inclusion of certain non-reciprocal charges in Telecom's undertaking, and the provisions for access to and co-location at Telecom, Vodafone and Access Seekers' MSCs; and
- amendments to Telecom's Final Undertaking to provide for a common handover arrangement for the MTAS at MSCs.

952. The Commission notes that the definitions of Text Message in Telecom and Vodafone's Final Undertakings do not appear, on their face, to expressly apply to internationally-originated SMS. In light of Telecom and Vodafone's comments that their undertakings would include internationally-originated traffic handed over in New Zealand, the Commission has interpreted the Final Undertakings to apply to internationally-originated SMS and expects that internationally-originated SMS will be treated and priced consistent with domestically-originated SMS.

953. The Commission has concluded that the following matters are not required as part of the factual of regulation:

- where prices are reflective of cost and barriers to efficient entry and expansion are addressed, non-discrimination provisions with respect to on-net and off-net pricing are not required; and
- asymmetric rates are not required.

954. The Commission intends to monitor a number of features of the mobile services market and will consider whether monitoring indicates any issues arise in relation to the mobile market, which warrant further regulatory attention. These issues include:

- whether the implied average on-net retail prices are such that they create a barrier to efficient entry and expansion in the mobile services market to the extent that a small MNO is not able to compete effectively;
- whether the prices and other terms and conditions in the market for commercial transport services, to provide for handover of the MTAS at MSCs, are competitive;
- whether the prices and other terms and conditions in the market for voice calls originating on a mobile network to toll-free numbers or calling card services are competitive; and
- the operation of the retail mobile services market in relation to MMS and data services to identify whether there are any signs of market failure.

955. The Commission has also concluded that:

- the Final Undertakings are in substance compliant with the standard access principles and the limits on those principles in the Act;

- the Final Undertakings comply with the Act and in particular meet all requirements set out in clause 5(1) of Schedule 3A;
- the five year period provided in the Final Undertakings is reasonable given the need to recognise investment incentives;
- it is not appropriate to recommend regulation of the MTAS and acceptance of the Final Undertakings for the purposes of the MTAS Investigation;
- recommending regulation either of all Access Providers or of some Access Providers only (e.g. 2degrees, given that it has withdrawn all undertakings previously submitted), in conjunction with accepting undertakings, would not be appropriate for the purposes of the MTAS Investigation; and
- a recommendation that the Minister defer a decision on the proposed regulatory change is not appropriate, as the Commission can make recommendations based on the Final Undertakings for the purposes of the MTAS Investigation.

APPENDIX 1: PROCESS OF MTAS INVESTIGATION

Introduction

1. The current MTAS Investigation has been underway since May 2008, and follows an earlier Schedule 3 investigation into regulation of mobile termination from May 2004 to June 2005 and a reconsideration process from August 2005 to April 2006. Following those earlier investigations, in April 2007 the Minister rejected the Commerce Commission's recommendation to regulate mobile termination and instead accepted deeds entered into by Telecom and Vodafone.⁶³¹

Consultation undertaken during MTAS Investigation

2. Through-out the process of the MTAS Investigation the Commission has extensively consulted with interested parties. The process that the MTAS Investigation has followed was:⁶³²
 - the Commission informed interested parties on 8 May 2008 that it was considering commencing a Schedule 3 Investigation into whether or not to subject MTM termination rates for both voice and SMS to regulation and seeking the views of interested parties;⁶³³
 - the Commission informed interested parties on 14 May 2008 that if, following the receipt of initial views from interested parties, there appeared to be reasonable grounds to commence an investigation, the Commission proposed testing the issue further by releasing an Issues Paper and seeking submissions before deciding whether to commence a formal Schedule 3 investigation. Seven interested parties advised their views on whether there were reasonable grounds to commence an investigation;⁶³⁴
 - the Commission released an Issues Paper⁶³⁵ on 8 August 2008. Submissions were received on the Issues Paper from 13 interested parties, with two expert reports provided in support of submissions;⁶³⁶
 - the Commission announced⁶³⁷ on 6 November 2008 that it considered that there were reasonable grounds to commence an investigation into whether or not the MTAS should be regulated as designated or specified services. A notice of the decision signifying commencement of the investigation was published in the *New Zealand Gazette* on Thursday 6 November 2008;

⁶³¹ Links to the Telecom Deed and Vodafone Deed are provided at footnote 26 above.

⁶³² Copies of all relevant correspondence, submissions, undertakings and reports are available at <http://www.comcom.govt.nz/IndustryRegulation/Telecommunications/Investigations/MobiletoMobileTermination/mobiletomobiletermination.aspx>.

⁶³³ Letter from Patterson (Commission) to interested parties, 8 May 2008.

⁶³⁴ Letter from Borthwick (Commission) to interested parties, 14 May 2008.

⁶³⁵ Commerce Commission, *Telecommunications Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination – Issues Paper* (the 'Issues Paper'), 8 August 2008. .

⁶³⁶ The submissions on the *Issues Paper* are summarised in Commerce Commission, *Reasons for Commerce Commission decision to investigate mobile termination access services* (the 'Commission's Reasons Decision'), 6 November 2008.

⁶³⁷ Commerce Commission, *Commission's Reasons Decisions*, 6 November 2008.

- the Commission requested information relevant to the investigation from mobile network operators, fixed-line only network operators and integrated operators on 14 November 2008;
- 2degrees provided initial undertakings on 22 December 2009, and Telecom and Vodafone provided initial undertakings on 12 January 2009. All initial undertakings were provided to the Commission within the timeframe in clause 15(1)(b) of Schedule 3A of the Telecommunications Act 2001, which required undertakings to be provided no later than 40 working days after the date the Commission commenced the MTAS investigation (ie by 12 January 2009);
- submissions from nine interested parties, and two expert reports in support of submissions, were received on the initial undertakings from interested parties before the deadline for submissions of 13 February 2009;⁶³⁸
- the Commission provided comments⁶³⁹ on the initial undertakings on 25 March 2009 and released a report from WIK Consult⁶⁴⁰, and invited potential access providers to submit revised undertakings by 22 April 2009;
- revised undertakings, and two expert reports in support of revised undertakings, were provided by Telecom and Vodafone on 6 May 2009.⁶⁴¹ 2degrees provided a letter responding to the Commission's comments on the initial undertakings, rather than providing revised undertakings;
- the Commission released its Draft Report⁶⁴², a quantitative model assessing the benefits of regulation for fixed to mobile termination compared to the status quo and the undertakings⁶⁴³, and a report from WIK Consult⁶⁴⁴ on 30 June 2009;
- submissions on the Draft Report were received from 14 interested parties, with four expert reports in support of submissions, by 28 July 2009. In addition, Telecom submitted further revised undertakings in conjunction with their submission;
- cross-submissions on the Draft Report and revised undertakings were received from nine interested parties, with six expert reports in support of submissions, by 18 August 2009;

⁶³⁸ The Commission extended the deadline for submissions from 5 February 2009 to 13 February 2009 in response to a request from Vodafone, due to a concern that the period for submissions did not provide sufficient time to consider and adequately comment on the issues raised by the undertakings.

⁶³⁹ Commerce Commission, *Comments on undertakings received in relation to the MTAS Investigation*, 25 March 2009.

⁶⁴⁰ WIK Consult, *Final Report: Study for the Commerce Commission of New Zealand - Cost Driver Sensitivity Analyses with Mobile Cost Models*, 22 December 2008.

⁶⁴¹ The Commission extended the deadline for revised undertakings from 22 April 2009 to 6 May 2009 in response to a request from Telecom, due to concerns about the amount and extent of regulatory processes that were underway at that time.

⁶⁴² 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.

⁶⁴³ Commerce Commission, *MTAS Quantitative Model (released with draft MTAS report)*, 30 June 2009.

⁶⁴⁴ WIK Consult, *Final Report: Study for the Commerce Commission of New Zealand - Review of Submissions by Operators and Reports by Consultants relating to the NZ Commerce Commission's MTAS Investigation*, 9 June 2009.

- on 13 August 2009, following a review of the confidentiality status of ICAs, the Commission advised it had reclassified information about all ICAs to be Additional Protection Information (**API**). The Commission invited submissions on the API by 20 August 2009, and received 2 submissions on the API;
- the holding on 2 and 3 September 2009 of a Conference⁶⁴⁵ on the Commission's Draft Report, submissions and the revised undertakings. Additional information on matters raised at the Conference and clarifying the position of experts in relation to whiteboard examples discussed at the Conference was provided following the Conference by Vodafone and two experts supporting interested parties;
- the opportunity for further submission of revised undertakings post-Conference, including the holding of a public meeting on 23 September 2009 to clarify any issues required for potential access providers to submit revised undertakings. Revised undertakings were submitted on 2 October 2009 by 2degrees, Telecom and Vodafone;
- submissions on those revised undertakings were received from seven interested parties, with two expert reports in support of submissions, on 16 October 2009;
- Telecom provided the Commission with a proposal on 28 October 2009 as to how reciprocity between Telecom and Vodafone's undertakings could be addressed. On 9 November 2009 the Commission invited 2degrees, Telecom and Vodafone to engage with each other in a transparent and constructive manner to discuss and, where possible, reach consensus as to how reciprocity in price and non-price terms between their respective revised undertakings could be achieved. These parties were invited to report on the outcome of discussions by 20 November 2009. 2degrees, Telecom and Vodafone confirmed that they would participate in this process on 11 November 2009;
- 2degrees provided its views on the outcome of the above discussions on 20 November 2009, with Telecom and Vodafone providing their joint views on 23 November 2009. The discussions did not result in a consensus view between all three parties as to how reciprocity could be achieved, however, Telecom and Vodafone presented a proposal as to how reciprocity could be addressed between their respective undertakings;
- the Commission provided feedback on 3 December 2009 on both Telecom's proposal of 28 October 2009 and the joint proposal of Telecom and Vodafone of 23 November 2009, as to how reciprocity could be addressed between Telecom and Vodafone's undertakings. The Commission also invited 2degrees, Telecom and Vodafone to submit any further revised undertakings that they wished the Commission to consider, in light of the parties' discussions over reciprocity issues and the Commission's views on reciprocity issues, by 15 December 2009;

⁶⁴⁵ Commerce Commission, *MTAS Conference Transcript*, 2 and 3 September 2009.

- Telecom and Vodafone provided further revised undertakings on 16 December 2009.⁶⁴⁶ 2degrees advised the Commission on 16 December 2009 that it was withdrawing all undertakings it had previously submitted and made a number of submissions for the Commission's consideration, were the Commission to recommend acceptance of revised undertakings from Telecom and Vodafone;
- Telecom provided further revised undertakings on 11 February 2010, aligning the implementation of its price terms with those contained in the Vodafone 16 December 2009 undertakings;
- Vodafone provided further revised undertakings on 16 February 2010, addressing issues where the Commission had requested clarification of Vodafone's 16 December 2009 undertakings; and
- following the submission of the Final Undertakings from Telecom and Vodafone, the Commission completed the assessment detailed in this Final Report.

Changes to the process of the MTAS Investigation in response to issues raised by interested parties

3. During the MTAS Investigation the Commission also responded to a range of procedural issues raised by interested parties, primarily Vodafone and Telecom.⁶⁴⁷ These process issues included requests for additional opportunities to submit revised undertakings, requests for the provision of the Commission's cost-benefit model at an earlier stage in the MTAS Investigation, requests that the Commission undertake more extensive cost-benefit modelling and a request for a review of the confidentiality status of various information provided under the Commission's confidentiality order for the MTAS Investigation.
4. In response to those procedural issues a number of changes were made to the Commission's processes for the MTAS Investigation, most significantly being the provision of additional opportunities for revised undertakings to be submitted at various stages during the MTAS Investigation.

⁶⁴⁶ The Commission extended the deadline for submissions of revised undertakings from 15 December 2009 to 16 December 2009 in response to a request from Vodafone.

⁶⁴⁷ See paragraphs 102 to 113.

Appendix 2: Executive summary from Draft Report⁶⁴⁸

Introduction

- i. This Draft Report relates to the Commission's investigation under Schedule 3 of the Telecommunications Act 2001 (the 'Act') as to whether or not the mobile termination access services ('MTAS'), incorporating mobile-to-mobile ('MTM') voice termination, fixed-to-mobile ('FTM') voice termination and short-message-service ('SMS') termination, should be recommended to be regulated as a designated or specified service under the Act (the 'MTAS Investigation'). The Commission announced on 6 November 2008 that it had decided that there were reasonable grounds to commence this MTAS investigation.
- ii. The MTM and FTM termination services are the termination of voice calls on a mobile telephone network which originate respectively on another mobile telephone network or fixed telephone network and are handed over to the terminating mobile telephone network. The SMS termination service is the termination of a SMS on a mobile telephone network which originates on another mobile telephone network and is handed over to the terminating mobile telephone network.
- iii. The MTAS Investigation is being undertaken in an environment where MTAS are provided by Telecom and Vodafone only. The prices for MTAS are set under Deeds entered into by Telecom and Vodafone (the 'Deeds') which expire on 31 March 2012, and commercial offerings from Telecom and Vodafone, with Vodafone's commercial offering currently only being available to 2degrees.
- iv. The current prices for the MTAS are summarised in Table 32 below. 2degrees is due to launch mobile services in August 2009, so does not currently offer MTAS although it will shortly be doing so.

Table 32: Comparison of MTAS prices under current Deeds and commercial arrangements⁶⁴⁹

| | Until 31/3/2010 | Until 31/3/2011 | Until 31/3/2012 |
|--|-----------------|-----------------|-----------------|
| Voice | | | |
| Telecom (cents per minute)⁶⁵⁰ | 15.0 | 14.0 | 12.0 |
| Vodafone (cents per minute)⁶⁵¹ | 15.0 | 14.4 | 14.0 |
| | | | |
| SMS | | | |

⁶⁴⁸ Commerce Commission, *Draft Report*, 30 June 2009, pages 10-20. Footnote, Table and Figure numbers in this Appendix 2 differ from those in the Draft Report.

⁶⁴⁹ All figures for current prices under Deeds and undertakings effective from 1 April each year to 31 March the following year.

⁶⁵⁰ Current prices for Telecom include prices under Telecom's Deed and commercial interconnection agreement, as discussed in paragraphs 5 to 7.

⁶⁵¹ Current prices for Vodafone include prices under Vodafone's Deed but do not include the details of Vodafone's commercial agreement with 2degrees [] VAP / 2AP, as further detailed in paragraph 8. {Note – classification of the AP information in this footnote has been revised since the Draft Report was issued.}

| | | | |
|--------------------------------|------------|------------|------------|
| Telecom (cents per SMS) | 9.5 | 9.5 | 9.5 |
|--------------------------------|------------|------------|------------|

Source: Commerce Commission (2009).

Undertakings received

- v. Under the Act, where the Commission is considering a proposed regulatory change, parties may submit undertakings as an alternative to the proposed regulatory change. Undertakings were initially received from 2degrees on 22 December 2008, and Telecom and Vodafone on 12 January 2009, respectively. Telecom and Vodafone subsequently submitted revised undertakings on 6 May 2009. The undertakings and revised undertakings from Telecom and Vodafone offer the same prices as those offered under the Deeds and Telecom's commercial interconnection agreement for voice, i.e., the prices as noted in Table 32 above, with extended terms.
- vi. The pricing structure of Telecom's revised undertaking of 6 May 2009 is set out in Table 33 below.

Table 33: Charges provided for under Telecom's revised undertaking

| | Until 31/3/2010 | Until 31/3/2011 | Until 31/3/2012 | Until 31/3/2013 | Until 31/3/2014 |
|-----|--------------------|--------------------|--------------------|--------------------|--------------------|
| FTM | 15cpm | 14cpm | 12cpm | 11cpm | 10cpm |
| MTM | 15cpm | 14cpm | 12cpm | 11cpm | 10cpm |
| SMS | 3.5cpt | 3.5cpt | 3.5cpt | 3.5cpt | 3.5cpt |

Source: Telecom (2009).

- vii. The pricing structure of Vodafone's three revised undertakings of 6 May 2009 is set out in Table 34 below.

Table 34: Charges provided for under Vodafone's revised undertakings

| | Until 31/3/2010 | Until 31/3/2011 | Until 31/3/2012 | Until 31/3/2013 | Until 31/3/2014 | Until expiry |
|-----|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------|
| FTM | 15cpm | 14.4cpm | 14.0cpm | 13cpm | 12cpm | 11cpm |
| MTM | 15cpm | 14.4cpm | 14.0cpm | 13cpm | 12cpm | 11cpm |
| SMS | 9.5cpt | 8.9cpt | 8.3cpt | 7.7cpt | 7.3cpt | 7.0cpt |

Source: Vodafone (2009).

Relevant markets

- viii. The Commission's preliminary view is that the relevant markets for the purposes of the MTAS Investigation are:

- 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 MTM calling, SMS, multi-media-message-service (‘MMS’) and data services (the ‘retail mobile services market’); and
- the national retail market for FTM and toll call services (the ‘retail FTM/tolls market’).

Competition assessment

Wholesale MTAS market

- ix. The Commission’s preliminary view is that mobile network operators are subject to limited competition in the wholesale market for termination access services on their respective networks, as:
- other mobile networks provide little or no constraint in each of the wholesale MTAS markets; and
 - countervailing buyer power in the hands of fixed network operators is unlikely to constrain the mobile networks in supplying termination services.

Retail mobile services market

- x. The retail mobile market in New Zealand is highly concentrated compared to other countries, with high retail prices and low levels of usage, particularly for voice services.
- xi. Retail prices for on-net services have generally been significantly lower than for off-net services between networks.
- xii. There have been some recent developments that may promote competition, including the expected deployment of a third mobile network.
- xiii. The Commission’s preliminary view is, however, that significant characteristics remain present that are likely to limit competition in the retail mobile services market.
- xiv. Most significantly, the provision of the MTAS at prices above cost represents a barrier to efficient entry and expansion in the retail mobile services market. While 2degrees is expected to enter the retail market within the next few months, its ability to compete for retail customers with the incumbent mobile network operators is likely to be limited where mobile termination rates (‘MTRs’) are significantly above cost.
- xv. In particular, the Commission’s preliminary view is that above-cost MTRs are likely to limit the extent to which an entrant will be able to compete with existing retail on-net prices in New Zealand. In 2008, on net traffic accounted for more than 80% of all MTM voice traffic, and a higher proportion for SMS.
- xvi. The Commission’s preliminary view is that competition at the retail level in New Zealand is insufficient to constrain the mobile operators in the wholesale supply of termination services on their respective mobile networks.

Retail FTM/tolls market

- xvii. MTAS are an important input into the supply of retail FTM calls. Retail prices for FTM and toll calls have been declining in recent years. Some of these reductions are likely to have resulted from reductions in FTM termination rates. However, average retail prices for these services remain substantially above the cost of supplying the retail services, and the Commission considers that this is in large part due to above-cost MTRs.
- xviii. A number of developments are likely to have increased competition in the retail FTM/tolls market, such as the cost-based regulation of fixed origination and the ability of retail competitors to offer bundles of services through UCLL or other forms of access (such as resale).
- xix. However, the Commission's preliminary view is that the supply of the MTAS at prices that substantially exceed cost still represents a barrier to efficient entry and expansion in the retail market in which FTM calls are supplied.
- xx. Existing fixed operators are likely to be limited in their ability to compete with integrated fixed-mobile network operators when supplying FTM calls, as long as MTRs remain significantly above cost.
- xxi. The Commission notes that both Telecom and Vodafone have in recent years been offering retail packages to business customers with retail FTM prices close to or below the wholesale MTR. The Commission notes that this suggests that integrated fixed and mobile operators, who pay the above cost MTR on a proportion of their FTM traffic only, enjoy a significant advantage over fixed-only operators, who must pay the MTR on all their traffic.

Assessment framework

- xxii. Given the presence of significant barriers to entry and expansion which constrain effective competition in the relevant markets, the Commission has considered whether regulation of the MTAS will promote competition for the long-term benefit of end-users.
- xxiii. In considering whether the MTAS should be regulated, the Commission considers the costs and benefits of regulation, by contrasting what is likely to happen in the absence of regulation (the 'counter-factual') to what is likely to happen if the MTAS is regulated (the 'factual'). The counter-factual scenario is based on the undertakings received from Telecom and Vodafone (summarised in Table 35 below).
- xxiv. The Commission's assessment of the potential benefits and costs of regulation includes both quantitative and qualitative elements. The Commission has estimated a range of potential benefits from regulation in the retail FTM/tolls market. 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.
- xxv. The Commission must consider efficiencies in this context, either as costs or benefits. To the extent that regulation promotes competition in the downstream markets, end-users are likely to benefit from reduced prices and greater efficiencies in the supply of retail services. The Commission will weigh these benefits against the costs associated with

regulation, to come to a view as to whether regulation will promote competition for the long-term benefit of end-users.

Regulated price

- xxvi. The Commission has benchmarked forward-looking, cost-based estimates from overseas countries to establish the likely regulated price. The Commission's preliminary view is that the benchmarked countries are sufficiently comparable to New Zealand for the purposes of establishing a cost-based MTR in New Zealand.
- xxvii. The Commission's preliminary view is that benchmarking against these cost-based rates is consistent with the Act's emphasis on regulated rates recovering efficiently-incurred costs.
- xxviii. The forward-looking cost-based MTR based on the benchmarked countries for voice (FTM and MTM) in 2009 is NZ7.2cpm, and NZ0.95 cents per SMS. Based on the cost path in overseas jurisdictions, the Commission expects the cost-based MTR to decline over time, due for example to increased traffic (a 'cost-path'). The resulting prices are summarised in Table 35 below.

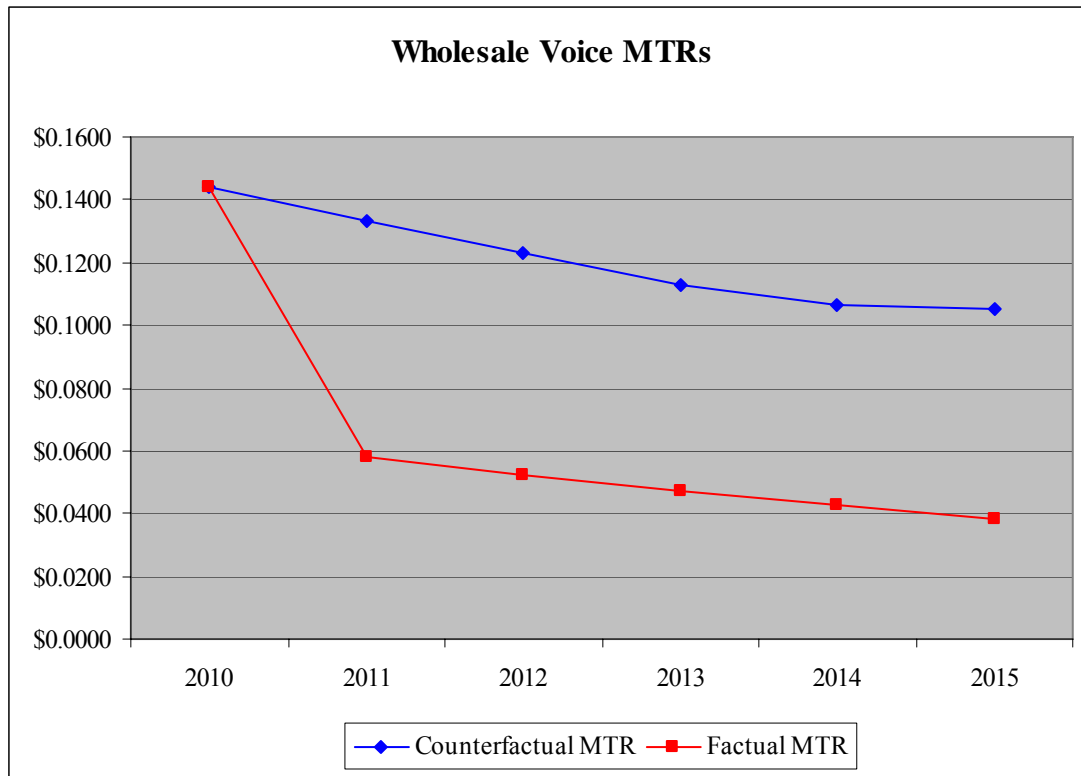
Table 35: Comparison of MTAS prices (NZcpm)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|
| Voice (cents per minute) | | | | | | | |
| Counter-factual MTR ⁶⁵² | 15.25 | 14.41 | 13.35 | 12.31 | 11.31 | 10.66 | 10.53 |
| Factual MTR | 7.20 | 6.50 | 5.80 | 5.20 | 4.70 | 4.30 | 3.80 |
| | | | | | | | |
| SMS (cents per SMS) | | | | | | | |
| Counter-factual MTR ⁴ | 6.68 | 6.44 | 6.12 | 5.81 | 5.57 | 5.39 | 5.36 |
| Factual MTR | 0.95 | 0.86 | 0.77 | 0.69 | 0.62 | 0.56 | 0.50 |
| | | | | | | | |

Source: Commerce Commission (2009).

- xxix. Figure 26 summarises the voice MTRs under the counter-factual of the undertakings and the likely voice MTRs under regulation.

⁶⁵² The counter-factual converts the undertakings rates weighted on a calendar basis for each year i.e., the counter-factual for 2010 is one-quarter of the undertakings rate for the period ending 31 March 2010 and three-quarters of the undertakings rate for the period starting 1 April 2010. These figures are then weighted for the proportion of mobile subscriber numbers on each of Vodafone's and Telecom's networks. Telecom and Vodafone's undertakings rates are assumed to remain unchanged for the purposes of calculating the counter-factual in 2014 and 2015.

Figure 26: MTRs in Undertakings and Regulation

Source: Commerce Commission, 2009.

- xxx. The Commission notes that its current cost-based benchmarks are similar to the termination rate that each of the established mobile operators implicitly charges itself in respect of on-net traffic. In contrast, the MTRs contained in the Vodafone and Telecom undertakings are significantly above the rates implied by the average retail on-net prices.

Framework for the Commission's draft recommendation

- xxxi. In assessing the impact of MTAS regulation, the Commission has considered the potential benefits and costs, including efficiency effects, in each of the relevant downstream retail markets. In considering the potential benefits from regulation, the Commission has assumed that the regulated price for the MTAS would be available from early 2011, on the basis that following any recommendation to regulate, such regulation would be introduced in early 2010, with the Commission finalising the price and non-price terms through its Standard Terms Determination process sometime in 2010.
- xxxii. For the Commission to be able to recommend that the Minister accept an undertaking(s), these would have to deliver comparable benefits to end-users over the assessment period, taking into account the quantitative and qualitative factors discussed in this draft decision. The Commission would take into account the advantages offered by revised undertakings, including the potential delivery of earlier reductions in MTRs than would be available under regulation, and the avoidance of direct costs of regulation and the regulatory process.

- xxxiii. The Commission's preliminary view is that a reduction in prices over time which heads towards a cost based rate (a 'glide-path') should only be considered as an implementation issue and not as part of the benchmarking. However, the Commission will take into account the effect of glide-paths as part of the undertakings in determining whether there are sufficient benefits to justify recommending acceptance of the undertakings.

Assessment of potential impact of regulation

- xxxiv. The Commission's preliminary view is that compared to the undertakings, cost-based regulation of the MTAS will promote competition in the downstream retail FTM/tolls market and retail mobile services market, with the result that there will be considerable benefits to end-users.
- xxxv. The Commission's preliminary views on the qualitative and quantitative assessment of benefits and costs, including efficiency effects, are summarised in Table 36 below, over a five-year period from 2011 to 2015. This includes a range of benefits from regulated reductions in MTRs, as well as a number of potential detriments. One such detriment relates to possible offsetting increases in retail mobile prices (sometimes referred to as the "waterbed effect").
- xxxvi. Any waterbed effect is likely to be influenced by a number of factors, such as the level of downstream competition and the level of mobile penetration. The EC has recently noted that a strong waterbed effect is unlikely. The Commission has examined information on retail mobile prices supplied by Vodafone and Telecom, which suggests that any waterbed effect in recent years has been small. With respect to the results of the quantitative assessment presented below, the Commission has therefore assessed the likely benefits to end users based on a range for the waterbed effect of 0% to 50%.
- xxxvii. Furthermore, the Commission considers that there are likely to be additional and substantial benefits to mobile customers from cost-based regulation of the MTAS, although the Commission has not attempted to measure these benefits.
- xxxviii. Therefore, the quantitative benefits estimated in Table 36 below are likely to significantly understate the overall value of net benefits obtainable from cost-based regulation of the MTAS.

Table 36: Qualitative and Quantitative Long-Term Benefits and Costs to End-Users

| Quantitative Assessment (5-year NPV, \$million) | Linear Demand (\$million) | Constant Elasticity Demand (\$million) |
|---|--|---|
| Static price effect (FTM) | \$279.5 | \$283.0 |
| waterbed effect (50%-0%) | -\$161.0 to \$0 | -\$182.9 to \$0 |
| Direct regulatory costs | -\$7.3 | -\$7.3 |
| Net Quantified Benefits (see paragraph xliii) | \$111.1 to \$272.1 | \$92.8 to \$275.7 |
| Allocative efficiency (FTM) | \$88.9 | \$114.2 |
| waterbed effect (50%-0%) | -\$30.3 to \$0 | -\$51.6 to \$0 |
| Direct Regulatory Costs | -\$7.3 | -\$7.3 |
| Net Quantified Benefits (see paragraph xliv) | \$51.3 to \$81.6 | \$55.3 to \$106.9 |

| Qualitative Assessment | |
|--|---|
| Static price effect (retail mobile) | positive (see paragraph xlvi) |
| Allocative efficiency (retail mobile) | positive (see paragraph xlvi) |
| Productive efficiency (FTM and mobile) | positive (see paragraphs xl, xlviii) |
| Dynamic efficiency (FTM and mobile) | positive (see paragraphs xl, xli, and xlviii) |

Source: Commerce Commission (2009).

Note: the net quantified benefits shown above are not additive.

Retail FTM/tolls market

- xxxix. In the retail FTM/tolls market, the reduction in MTRs as a result of regulation (as summarised in Figure 26 above) is likely to result in increased competition between FTM suppliers and result in significant benefits to end-users.
- xl. Greater competition resulting from cost-based input prices is also likely to result in increased productive efficiency, innovation and efficient investment in the delivery of services over fixed networks. This may include the development of flat-rate retail plans that include FTM services.
- xli. In addition, the absence of cost-based regulation of MTRs and fixed termination rates may be a barrier to important innovations and investments in the fixed sector, such as fibre roll-out and the delivery of Next Generation Networks which will allow higher bandwidths and more efficient provision of multiple services.
- xlii. The resulting reduction in retail FTM prices could deliver a long-term benefit of approximately \$280 million over five years to end-users.
- xliii. The likely reductions in MTRs as a result of regulation may have some offsetting effect on other retail prices, such as mobile subscription prices. Taking into account such a 'waterbed effect', as well as the direct costs associated with regulatory processes, the Commission has quantified a net benefit to end-users of between \$92.8 million and \$111.1 million over five years. In the absence of a waterbed effect, the resulting quantified net benefit to end-users is from \$272.1 million to \$275.7 million over five years.
- xliv. The net quantifiable gain in efficiencies is estimated to be between \$51.3 million and \$55.3 million over five years with a waterbed effect, or between \$81.6 million and \$106.9 million in the absence of a waterbed effect. These quantitative benefits can not be added to provide the overall quantitative benefits to end-users, as there is some overlap between the net quantified benefits from the static price effect and the allocative efficiency effect.

Retail mobile services market

- xl. There are likely to be considerable additional benefits from MTAS regulation arising in the retail mobile services market. These include increased competition between the existing mobile network operators, as MTR reductions are passed through into retail prices for MTM calling.

- xlvi. Cost-based regulation of the MTAS will remove a significant barrier to entry and expansion in the retail mobile services market. Given the relatively concentrated New Zealand retail market, the efficient entry and expansion of a third mobile network could potentially have significant effects, such as:
- given a 5% price effect arising from new entry, the resulting annual gain to consumers is estimated to be approximately \$42.6 million p.a., while the allocative efficiency gain is estimated to be around \$11.3 million p.a.; and
 - cost savings for consumers who no longer need to maintain multiple handsets in order to avoid paying relatively high off-net call prices.
- xlvii. Based on the Commission's cost-based benchmark MTRs, an efficient entrant mobile operator should be able to compete with the existing mobile operators in supplying on-net and off-net services to end-users. In contrast, the MTRs in the undertakings are likely to constrain the ability of an entrant to compete, given average on-net retail prices.
- xlviii. Increased downstream competition in the retail mobile services market is likely to deliver additional benefits to end-users over time, through ongoing innovation and investment in new technologies. Gains in productive efficiency may also result from an increasingly competitive mobile market.

Potential costs of regulation

- xlix. The Commission has considered the potential for some offsetting increases in retail mobile prices arising from the 'waterbed effect' of regulation. Given the level of competition in the retail mobile services market, the waterbed effect in New Zealand is unlikely to offset the declines in price expected under the factual. In recent years, retail subscription prices have continued to decline as wholesale MTRs have fallen.
- l. The potential loss to consumers from the waterbed effect and the direct regulatory costs associated with regulatory processes have been taken into account in the net quantified benefits and net quantified allocative efficiency gains figures in Table 36 above.

Conclusion and draft recommendation

- li. The Commission has weighed up the costs and benefits of regulation compared to the counter-factual of recommending that the undertakings be accepted.
- lii. The Commission considers that the reductions in MTRs that would be expected under the factual of cost-based regulation of the MTAS are likely to increase competition in the national retail market for mobile services and the national retail market for FTM and toll call services, resulting in:
- a reduction in retail prices in these markets; and
 - increased efficiencies,
- which in turn will result in substantial long-term benefits to end-users in these markets.

- liii. There are currently two established mobile network operators in New Zealand, with a third operator about to enter. In the Commission’s preliminary view, an efficient entrant mobile network operator will be limited in its ability to compete with the established mobile operators, as long as MTRs remain above cost.
- liv. The Commission’s preliminary view is that the above qualitative assessment provides sufficient net benefits to support a recommendation that the MTAS should be regulated. The additional quantitative assessment is consistent with this recommendation.
- lv. The Commission’s preliminary view is that the regulation should include price terms,⁶⁵³ and that the pricing principles for MTAS should be based on the efficient forward-looking costs of supplying termination services. The Commission has also recommended that the regulated pricing principle retain BAK as an option, to be applied where this is in the long-term benefit of end-users. This approach is consistent with the existing regulated pricing principle for fixed interconnection services in the Act.
- lvi. The proposed initial pricing principle is:
- “Benchmarking against MTAS prices in comparable countries that result from the application to networks that are similar to the access provider’s mobile network of -
- (a) a forward-looking cost-based pricing method; or
- (b) if the Commission considers that a forward-looking cost-based pricing method does not best give effect to the purpose set out in section 18, whichever of the following methods that the Commission considers best gives effect to that purpose:
- (i) a pure bill and keep method; or
- (ii) a pure bill and keep method applied to two-way traffic in balance (or to a specified margin of out-of-balance traffic) and a forward-looking cost-based pricing method applied to out-of-balance traffic (or traffic beyond a specified out-of-balance margin).”
- lvii. This reflects the proposed final pricing principle, which would either involve total service long-run incremental costs (TSLRIC) or a bill and keep method, if TSLRIC is not considered to best give effect to the purpose set out in section 18 of the Act.
- lviii. The Commission’s draft recommendation is that the MTAS should be made a designated access service by adding the item set out in paragraph 959 to Subpart 1 of Part 2 of Schedule 1 of the Act.
- lix. Consistent with the Commission’s draft recommendation in paragraph lviii, the Commission’s draft recommendation is that the undertakings submitted by 2degrees and the revised undertakings submitted by Telecom and Vodafone should not be accepted under Schedule 3A of the Act.
- lx. The Commission reiterates that for it to be able to recommend that the Minister accept an undertaking(s), these would have to deliver acceptable benefits to end-users over the assessment period, as have been taken into account in the assessment of the qualitative and quantitative benefits of regulation, in this draft decision.

⁶⁵³ The Telecommunications Act 2001 refers to this form of regulation as “designation”.

- lxi. The Commission would take into account the advantages offered by undertakings, including the potential delivery of earlier reductions in MTRs than would be available under regulation, and the avoidance of direct costs of regulation and the regulatory process. Implementation issues that achieve such outcomes, such as glide-paths, would also be considered.

APPENDIX 3: SUBMISSIONS ON MARKET DEFINITION AND COMPETITION ASSESSMENT ISSUES

Market Definition

Summary of Draft Report

1. In the Draft Report the Commission's preliminary view was 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 FTM/tolls market").
2. Submissions relating to Market Definition and Competition Assessment received prior to the Draft Report are summarised in Appendix 2 of the Draft Report.

Wholesale market for mobile termination access services

3. In reaching the preliminary view that the relevant wholesale market for the purposes of this investigation was the national wholesale market for MTAS on each mobile network, the Commission had regard to submissions from Vodafone and Telecom on the Issues Paper that a broader mobile services market, encompassing wholesale mobile termination services as well as retail services, should be defined.
4. These submissions argued that due to the two-sided nature of mobile markets, subscription costs and prices must be taken into account when considering mobile termination rates. Although the Commission acknowledged that there are some complementarities in production on the supply side, and that firms will supply mobile termination, subscription and calling services together, it also noted that there is a significant discontinuity on the demand side between purchasers of the service. In particular, mobile termination is a service purchased by wholesale customers, while retail customers purchase subscription and calling services.
5. Although 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. In addition, the Commission noted 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. Accordingly, the Commission defined a wholesale market for termination on each mobile network as well as separate downstream retail markets.

Downstream markets

6. In the Draft Report the Commission defined two downstream markets relevant to the MTAS investigation. These markets were the retail mobile services market and the retail FTM/tolls market.
7. In defining the downstream retail FTM/tolls market the Commission noted that a high proportion of customers tend to purchase both tolls and FTM calls from the same supplier. The Commission also noted that there are complementarities in the provision of FTM and tolls services.
8. In relation to the retail mobile services market, the Commission noted that SMS, MMS and data services are often sold as part of a bundle of retail mobile services, including mobile-originated calling and subscription services.

Submissions and cross-submissions on the Draft ReportWholesale MTAS market*Two-sided market***Telecom**

9. In its submission, Telecom stated that the Commission's preliminary view in the Draft Report that 'the two-sided nature of the market does not imply that mobile networks are constrained when setting prices for termination on their networks' is incorrect.⁶⁵⁴
10. Telecom submitted that in this investigation, the Commission's approach is to consider each side of the market separately by applying the regulatory policy tools more appropriate to a single-sided market, severing mobile termination access services from the retail supply of mobile services (including mobile subscription and mobile origination). Telecom submitted that this does not take into account the true nature of the two-sided market – namely, the interdependence between the two sides.⁶⁵⁵
11. Telecom noted that the Commission has been exposed to the practical issues related to two-sided markets in the past. For example, Telecom referred to a number of previous Commission decisions relating to newspaper and other media mergers (decisions 561, 573 and 557), noting that although these have occurred in the context of mergers and acquisitions the lessons for market and competition analysis are relevant to the regulation of Telecommunications.⁶⁵⁶
12. Telecom went on to state that in a two-sided market there should be no expectation that price will equal marginal cost on any one side, suggesting that since the price structure required in a two-sided market is not related solely to cost, there is no necessary linkage between marginal costs and price structure.⁶⁵⁷
13. Telecom further submitted that MTRs are not a fee for interconnection service in a two-sided market. Rather, Telecom stated that MTRs operate to ensure the efficient operation

⁶⁵⁴ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 39.

⁶⁵⁵ *ibid*, paragraph 45.

⁶⁵⁶ *ibid*, paragraph 45, footnote 10.

⁶⁵⁷ *ibid*, paragraph 47.

of the two-sided market by balancing the demands of the two types of user; the calling and receiving parties respectively.⁶⁵⁸

Concept Economics

14. Concept Economics submitted that in two-sided markets, prices that reflect the marginal externalities that each group brings to the other are efficient. For example, if callers value the subscription of a third party, then efficiency could be guaranteed if the retail subscription price equals the marginal private cost of subscription less the benefits potential callers would gain if the subscription was undertaken (because such subscription prices would internalise the network externality).⁶⁵⁹
15. Concept Economics noted that this suggests setting *retail* prices to reflect marginal social cost, but does not *per se* justify above cost termination charges.
16. Concept Economics further submitted that relying on two-sided reasons to justify above cost termination charges requires advancing a second best argument, because termination charges in excess of marginal private cost may, though need not, be an indirect way of taxing callers when they make calls as a means of eliciting their demand for third party subscriptions. Concept Economics argued that:⁶⁶⁰

‘...even if all this were true, it must be demonstrated that such a second best argument is likely to be efficient. That is, to justify above cost termination charges as a means of internalising the network externality requires (1) showing there is a material externality; (2) showing that this cannot be directly addressed, but instead is best addressed through above cost termination charges; (3) identifying the efficient extent to which termination charges should be set above cost; and (4) demonstrating that doing this would in all likelihood increase economic efficiency, that is, that errors and unintended consequences process would not ultimately lead to more harm than good. That is, too high mobile termination rates could harm economic efficiency.’

17. However, Concept Economics went on to suggest that, in the present case, each of these points are problematic. Concept submitted that this is because.⁶⁶¹
 - it is not at all obvious that the network externality is of particular importance in New Zealand today, noting that current penetration rates suggest there may not be substantial gains from new subscribers;
 - just as first best efficiency in subscriptions can be guaranteed by ensuring subscription charges reflect marginal social cost, the same is true for calling. Given effective retail competition, as a second best measure, termination rates should lie below marginal private cost. Thus, network externality aside, efficient mobile termination rates would be set *below* marginal cost;
 - the two-sided market literature calls for prices that reflect social costs. There is no doubt that the marginal private cost of call termination, rather than the average per minute long run incremental cost of termination as a service, is virtually zero. Thus, any termination rate that is justified on the basis of the two-sided models of call

⁶⁵⁸ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 52.

⁶⁵⁹ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 26-27.

⁶⁶⁰ *ibid*, p 27.

⁶⁶¹ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 27-28.

termination amounts to the second best wholesale “tax” necessary to bring marginal private cost up to marginal social cost; and

- therefore, it must be true that (1) the second best argument set out above is justified, (2) the network externality is larger than the calling externality, and (3) the appropriate tax can be calculated. However, in the present case, no analysis vaguely along these lines has been undertaken.

Vodafone

18. Vodafone submitted that the market definition framework proposed by the Commission is too narrow with respect to the product and functional dimensions. In particular, Vodafone argued that while MTAS may be directly purchased by wholesale customers only, it is the consumers 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.⁶⁶²
19. Accordingly, Vodafone submitted that the Commission’s focus when considering the appropriate market definition should be on the nature of consumer behaviour and the existence of alternative sources of supply given what consumers demand.⁶⁶³ Vodafone submitted that no end user wishes to have access to telecommunications services without being able to receive calls from other networks, so termination services and retail mobile services have very strong complementarity.⁶⁶⁴
20. Vodafone further submitted 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. Vodafone argued that:⁶⁶⁵

‘... in terms of welfare analysis, confining attention to termination will lead to an incorrect assessment of the net 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.’

Market for SMS termination

Vodafone

21. In its submission on the Draft Report, Vodafone noted that in reaching its preliminary view that SMS termination should be regulated, the Commission would appear to have simply assumed that SMS termination is like voice termination. That is, Vodafone submitted that the Commission seems 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.⁶⁶⁶

⁶⁶² Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 132 - 133, paragraph 493.

⁶⁶³ *ibid*

⁶⁶⁴ *ibid*, paragraph 495.

⁶⁶⁵ *ibid*, p 133, paragraph 496.

⁶⁶⁶ *ibid*, p 102, paragraph 368.

22. Vodafone submitted, however, that there are a number of unique features about SMS termination that mean it has to be analysed differently to voice termination. Vodafone submitted that these features include:⁶⁶⁷
- SMS is a two-way means of communication where both parties send messages back and forth to each other, which means that interconnection traffic is likely to be largely balanced;
 - 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;
 - because of the two-way nature of SMS communication, the effective price faced by a mobile network operator whose consumer commences an SMS conversation is significantly below the apparent “headline” SMS termination rate. This is because given that 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.
23. Furthermore, Vodafone submitted that the view that mobile operators have bottleneck control over SMS traffic that terminates on their network relies on the notion that the only way that a consumer can send a short data message to a consumer on another network is via an SMS message. Vodafone asserted, however, that there are a number of other ways in which consumers can send short data messages between their mobile phones which are very close substitutes for SMS. These include:⁶⁶⁸
- 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 Facebook, Twitter and Bebo.
24. Vodafone submitted that this has implications at both the wholesale level and retail level, by acting as a constraint on pricing.⁶⁶⁹

Telecom

25. In its cross-submission, Telecom agreed with Vodafone that the Commission’s market definition of the SMS service should look at close substitutes such as mobile IM. Telecom also submitted that the market is likely to be a cluster market of mobile services given that customers do not generally have one mobile only for texting, another only for IM, and a third only for voice calls.⁶⁷⁰

⁶⁶⁷ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 369.

⁶⁶⁸ *ibid*, p 106, paragraph 386.

⁶⁶⁹ *ibid*, paragraphs 388-390.

⁶⁷⁰ Telecom, *MTAS investigation: Cross-submission*, 18 August 2009, p 25, paragraph 103.

26. Telecom argued that if a more correct approach to market definition is carried out, a different view of competition results when carrying out the appropriate analysis. Telecom submitted that it is not necessarily the case that variances from long run marginal cost based pricing in the narrowly defined MTAS markets identified by the Commission signal a competition problem which requires regulatory intervention.⁶⁷¹

Retail FTM/tolls market

TelstraClear

27. TelstraClear submitted that with the availability of wholesale access services, the market focus has shifted to delivering bundles of services to customers, and most TelstraClear customers now purchase bundles of services that can include voice access, internet access, toll calling/FTM and television services.⁶⁷²
28. TelstraClear submitted that, as a result, the market for stand-alone toll/FTM services is declining, as providers increasingly deliver 'whole of customer' solutions. TelstraClear submitted that, for example, its stand-alone toll-bypass/FTM customer base has gone from [] TCLCOI to [] TCLCOI.⁶⁷³ Accordingly, TelstraClear submitted that any analysis should rightly consider the bundle, and look at issues such as service improvement and other value-adds, rather than FTM prices alone.

Vodafone

29. Vodafone submitted 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. In particular, Vodafone submitted that fixed-line service providers don't just compete to provide FTM and toll calls, rather, competition tends to occur over a broader suite of services, including basic access, local calling and dial-up or broadband internet services.⁶⁷⁴ Accordingly, Vodafone submitted that the market within which FTM calls are provided is now significantly broader than it would have been back in 1996.

MTAS Conference

30. At the MTAS conference, TelstraClear stated the following during discussions regarding FTM pass-through.⁶⁷⁵

'Now what is the down-stream market, what is the competition we see occurring in the fixed line market? It's around bundles, it's not around stand-alone services. If we look at the genesis of competition it started around tolls fixed to mobile and the genesis of that was largely Clear Communications, the predecessor company to TelstraClear.

What we now see in the market is a movement towards bundles, so that is access calling, broadband and television. And we all fairly ferociously compete around that whole parameter. What we sell to our customers is a value proposition and a bundle, and I think everyone, and I see it in the propositions Vodafone make as well, it's around bundling, it's not around single services.'

⁶⁷¹ *ibid*, paragraph 104.

⁶⁷² TelstraClear, *Submission on the MTAS Draft Report*, 28 July 2009, p 6, paragraphs 18-19.

⁶⁷³ *ibid*, paragraph 19.

⁶⁷⁴ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 56, paragraph 186.

⁶⁷⁵ MTAS Conference Transcript, 3 September 2009, p 185, lines 13-22.

31. Similarly, CallPlus noted that “going into a head on battle on one single product actually is a battle that we shouldn't be fighting because we're not well able, in a marketing sense, to win that battle”. Rather, CallPlus noted that it is more likely to focus its propositions around bundles of services, including broadband and international rates, which are noting that these are “battle grounds” on which it is more able to compete.⁶⁷⁶

Competition Assessment

Summary of Draft Report

Wholesale MTAS market

32. In the Draft Report the Commission's preliminary view was that mobile network operators are subject to limited competition in the wholesale market for MTAS on their respective networks, as:
- other mobile networks provide little or no constraint in each of the wholesale MTAS markets; and
 - countervailing buyer power in the hands of fixed network operators is unlikely to constrain the mobile networks in supplying termination services.

Retail mobile services market

33. In the Draft Report the Commission noted that:
- the retail mobile market in New Zealand is highly concentrated compared to other countries, with high retail prices and low levels of usage, particularly for voice services;
 - retail prices for on-net services have generally been significantly lower than for off-net services between networks; and
 - there have been some recent developments that may promote competition, including the expected deployment of a third mobile network.
34. The Commission's preliminary view was, however, that significant characteristics remain present that are likely to limit competition in the retail mobile services market.
35. Most significantly, the Commission noted that provision of the MTAS at prices above cost represents a barrier to efficient entry and expansion in the retail mobile services market. In particular, the Commission's preliminary view was that above-cost MTRs are likely to limit the extent to which an entrant will be able to compete with existing retail on-net prices in New Zealand.
36. The Commission's preliminary view was that competition at the retail level in New Zealand is insufficient to constrain the mobile operators in the wholesale supply of termination services on their respective mobile networks.

⁶⁷⁶ MTAS Conference Transcript, 3 September 2009, p 187, lines 4-9.

Retail FTM/tolls market

37. The Commission noted in the Draft Report that retail prices for FTM and toll calls have been declining in recent years and that some of these reductions are likely to have resulted from reductions in FTM termination rates. However, the Commission also noted that average retail prices for these services remain substantially above the cost of supplying the retail services, and suggested that this is in large part due to above-cost MTRs.
38. The Commission further noted that a number of developments are likely to have increased competition in the retail FTM/tolls market, such as the cost-based regulation of fixed origination and the ability of retail competitors to offer bundles of services through UCLL or other forms of access (such as resale).
39. However, the Commission's preliminary view was that:
- the supply of the MTAS at prices that substantially exceed cost still represents a barrier to efficient entry and expansion in the retail market in which FTM calls are supplied; and
 - existing fixed operators are likely to be limited in their ability to compete with integrated fixed-mobile network operators when supplying FTM calls, as long as MTRs remain significantly above cost.
40. The Commission noted that both Telecom and Vodafone have in recent years been offering retail packages to business customers with retail FTM prices close to or below the wholesale MTR. The Commission noted that this suggests that integrated fixed and mobile operators, who pay the above cost MTR on a proportion of their FTM traffic only, enjoy a significant advantage over fixed-only operators, who must pay the MTR on all their traffic.

Submissions and cross-submissions on the Draft Report

Wholesale MTAS market

Telecom

41. As noted in paragraph 9 above, Telecom submitted that the Commission’s preliminary view in the Draft Report 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” is incorrect.⁶⁷⁷
42. In support of this view, Telecom submitted that market power in a two-sided market is the ability to earn economic rents by sustaining prices on both sides of the market above competitive levels, not to sustain prices above marginal cost on one side of the market. Telecom submitted that provided that the market is sufficiently competitive, the feedback effect will drive MTRs down to economically efficient levels.⁶⁷⁸

Concept Economics

43. Concept Economics submitted that Telecom is incorrect in claiming that two-sided market considerations would not lead the Commission to find substantial market power in termination. Rather, Concept Economics noted that the Commission’s finding that there is substantial market power in the case of termination (on the basis that the terminating network largely has a monopoly over call termination to its customers) is entirely consistent with the literature on two-sided markets.⁶⁷⁹
44. Concept Economics further submitted that one of the great flaws of two-sided markets is that competitive pressures may not be capable of ensuring efficient pricing. Concept submitted that:⁶⁸⁰

‘...a standard result of the theory of two-sided markets is that a form of inefficient monopolization arises where one side of the market wishes to reach everyone on the other side (such customers are called multi-homers), but people on the other side can only be reached through a unique platform (and so are called single-homers). In that circumstance, the platform providing service to the single homers has substantial market power, which models of two-sided markets demonstrate, can lead to substantial economic inefficiencies.’

MTAS Conference

45. At the MTAS Conference, Concept reiterated its view that a termination monopoly is consistent with the literature on two sided markets.⁶⁸¹ In response, NERA agreed that there is a termination bottleneck, stating that:⁶⁸²

‘...if you want to reach a particular caller then that network is the gateway, is the bottleneck. So that’s the first issue.’

⁶⁷⁷ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 39.

⁶⁷⁸ *ibid*, paragraph 57.

⁶⁷⁹ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 28.

⁶⁸⁰ *ibid*, p 29.

⁶⁸¹ MTAS Conference Transcript, 2 September 2009, p 35-36.

⁶⁸² *ibid*, p 36-37.

I think as a secondary issue - it's not a secondary, sorry, a second issue, what does that mean for pricing? And that's where I think it's not clear-cut. And that's why I didn't like the phrase 'monopoly profits from MTRs above cost'. Because I think if you look at the evolution of the two-way interconnection literature starting with Laffont, Ray and Tirole, and Armstrong in the late 90s, they set up the original model, their original concern was above cost interconnection prices because they worried about collusion at retail level. But that was based on about seven or eight key assumptions.

Then what's followed is literature altering those assumptions to see what happens. And what I think is intriguing is that the prediction as to where the firms have set the access price, sometimes it's above cost, sometimes it's below cost, sometimes it's at cost. So I think this is part of the complication that **even though there is a bottleneck you cannot simply deduce from that that prices will be set at the monopoly level.**' [emphasis added]

46. Covoc also appeared to agree that a termination bottleneck exists, but noted that there is competition for the right to have the market power resulting from the termination bottleneck, in the sense that mobile network operators compete for subscribers.⁶⁸³

Retail mobile services market

Vodafone submission

47. Vodafone submitted that a number of the Commission's claims in the Draft Report are inaccurate. In particular, Vodafone argued that the New Zealand market is less concentrated than the Commission imagines, noting that:⁶⁸⁴
- there is a third infrastructure-based competitor about to enter the market (at the time of submission – 2degrees has now entered the market);
 - there are five individually branded MVNOs already in the market (TelstraClear, M2, Compass, Digital Island, and Black & White);
 - three more individually branded MVNOs are set to enter the market (CallPlus, Slingshot and Orcon); and
 - there are numerous wholesale providers.
48. Vodafone disputed the Commission's statement in the Draft Report that "MVNOs are unlikely to increase competition in the 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 MVNOs to differentiate and offer innovative new retail services is limited". Rather, Vodafone argued that MVNOs are increasing the intensity of competition in New Zealand, noting that Vodafone's MVNO deal with TelstraClear is for bulk national minutes which allow it sufficient flexibility to design retail offers.⁶⁸⁵
49. In relation to mobile voice usage, Vodafone submitted that the Commission's observation that mobile outgoing minutes per subscriber in New Zealand is low ignores several important factors, including:⁶⁸⁶

⁶⁸³ MTAS Conference Transcript, 2 September 2009, p 37, lines 20-23.

⁶⁸⁴ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 88, paragraph 311.

⁶⁸⁵ *ibid*, p 89, paragraphs 315-316.

⁶⁸⁶ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 89-90, paragraphs 317-321.

- residential local fixed-line calling is free in New Zealand, and such calls will be a very good substitute for mobile calls in many cases;
 - SMS prices in New Zealand are low and usage is high, and in many cases sending an SMS is a good substitute for making a call; and
 - Voice usage in New Zealand is growing rapidly, with the number of calls made per customer on Vodafone's network growing at a compound annual growth rate of 15 percent per year over the period from 2004/05 to 2008/09.
50. Vodafone also argued that its prices perform well in the OECD rankings, stating that:⁶⁸⁷
- its 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 the Family plans; and
 - it is 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.
51. In relation to New Zealand's current mobile penetration rate, Vodafone submitted that penetration in excess of 100% is not driven by customers having multiple handsets to take advantage of on-net pricing. Vodafone noted that the calculation of penetration includes every device connected to a mobile network, even if it is not a phone, and therefore includes data devices that are used to provide mobile broadband services. In addition, Vodafone noted that some people will have two handsets for reasons unrelated to on-net pricing, such as having a work phone paid by their employer and another phone for personal use.⁶⁸⁸
52. Regarding SMS, Vodafone submitted that 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. Vodafone stated that average retail SMS prices in New Zealand have declined by 29 percent on average in each of the last five years, while the volume of texts sent per subscriber has increased by 37 percent over the same period.⁶⁸⁹
53. Vodafone argued that, taking into account competition from substitutes (such as instant messaging) as well as competition between operators in the market for SMS, the pressure on SMS prices is strong and therefore, there is no reason for the Commission to be concerned about retail SMS pricing.⁶⁹⁰

Vodafone cross-submission

54. In its cross-submission Vodafone conceded that when the Commission first started considering mobile termination rates in 2004, there was room for improvement in the retail

⁶⁸⁷ *ibid*, paragraphs 326-328.

⁶⁸⁸ *ibid*, p 92-93, paragraphs 334-336.

⁶⁸⁹ *ibid*, p 107, paragraphs 391-392.

⁶⁹⁰ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 107, paragraph 396.

mobile market in New Zealand. However, Vodafone submitted that this is no longer the case.

55. At a structural level, Vodafone noted that the market has moved from having two providers of retail mobile services in 2004 to having three network operators, seven individually-branded MVNOs⁶⁹¹ and one more to come⁶⁹².
56. Vodafone further submitted that the conditions for new entry are significantly more favourable than they were in 2004 as a result of a number of regulatory, government and commercial activities. In particular, Vodafone noted that:⁶⁹³
- mobile number portability was introduced in April 2007 so that consumers can now easily move between networks without having to give up their existing phone number;
 - the Commission has made a standard terms determination in relation to mobile co-location that sets out the terms and conditions upon which parties can seek to co-locate on each others networks;
 - there are now three mobile network operators in New Zealand such that the market for national roaming should be significantly more competitive for any potential new entrant than it was in 2004; and
 - any new mobile network entrant can have access to mobile termination on Vodafone's network on the same terms as the secret deal entered into with 2degrees.
57. Vodafone also submitted that there have been a number of significant improvements in retail market outcomes for consumers since 2004. Vodafone submitted that from 2004-05 to 2008-09:⁶⁹⁴
- average revenue per outgoing voice minute fell by 18 percent on average across each of these years (55 percent in total over the entire period);
 - average revenue per outgoing SMS fell by 29 percent on average across each of these years (75 percent in total over the entire period);
 - voice usage per customer per annum (in minutes) grew by 74 percent; and
 - SMS usage per customer per annum grew by 254 percent.
58. In relation to international comparisons of revenues and usage, Vodafone submitted that in 2004-05 New Zealand consumers faced retail prices for voice services that were, on average, higher than those faced by consumers in some key comparable overseas jurisdictions, such as [] **VNZCOI**. Vodafone submitted, however, that the situation has

⁶⁹¹ TelstraClear, M2, Compass, Black and White, CallPlus and Slingshot are operating on Vodafone's network, while Digital Island is operating on Telecom's network.

⁶⁹² In footnote 27 of its cross-submission Vodafone noted that it was recently reported that Orcon will be launching its mobile offering within 60 days.

⁶⁹³ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 23, paragraph 68.

⁶⁹⁴ *ibid*, p 23, paragraph 70-71.

changed greatly since 2004-05, with internal Vodafone benchmarking data for 2008-09 showing that voice revenue per outgoing minute is now lower than that which exists in each of these jurisdictions.⁶⁹⁵

59. With regard to SMS, Vodafone submitted that average revenue per outgoing SMS has always been relatively low in New Zealand compared to the rest of the world, but large reductions since 2004-05 have seen New Zealand move to be clearly cheaper than the Vodafone operating companies in [] VNZCOI.⁶⁹⁶
60. Vodafone conceded that voice usage is low in New Zealand relative to other parts of the world. However, Vodafone submitted that this is not a result of high retail prices for voice calls in New Zealand. Rather, Vodafone submitted that it believes that this is a result of the combination of free local calling in New Zealand, and the relatively low retail prices for SMS. In support of this Vodafone noted that SMS usage per customer has risen dramatically in New Zealand in recent years compared to the Vodafone operating companies in [] VNZCOI, and that SMS usage per customer in New Zealand is now almost double that of the next highest of these three countries.⁶⁹⁷
61. Vodafone further submitted that SMS and voice services are provided as part of the same bundle of services, and that they are, to some extent, substitutable for each other. Consequently, Vodafone argued that due to low SMS prices and the existence of free local calling, it should not be surprising that there is relatively low usage of mobile voice calls in New Zealand.⁶⁹⁸
62. Vodafone submitted that it expects to continue to perform strongly in OECD benchmarking. Vodafone noted that with the recent introduction of the ‘Easy Plans’ (which replace the previous ‘Base Plans’) it has improved the terms of the plans used in the benchmarking analysis. However, Vodafone also noted that the OECD benchmarking exercise fails to capture the benefits that consumers enjoy from offerings such as:⁶⁹⁹
- BestMate Prepay – which currently provides around \$375 of value each month for only \$6 (based on customer usage of this product and standard out-of-bundle calling rates;
 - TXT2000 – which provides for \$400 worth of on-net SMS for only \$10 per month;
 - Family – which currently provides around \$390 of value each month for only \$20; and
 - TXT600 – which currently provides for \$120 worth of any-net SMS for on-account customers for \$12.95 per month.
63. Vodafone submitted that New Zealand is now world leading in terms of product innovation and 3G network deployment. Vodafone noted that New Zealand now has two fully deployed 3G mobile networks in New Zealand that both cover 97 percent of the population.

⁶⁹⁵ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 25, paragraph 75.

⁶⁹⁶ *ibid*, p 26, paragraph 76.

⁶⁹⁷ *ibid*, p 28, paragraph 84.

⁶⁹⁸ *ibid*, p 28-29, paragraph 86.

⁶⁹⁹ *ibid*, p 30-31, paragraphs 92-93.

In contrast, Vodafone's 3G network deployment is only in the metropolitan areas of Australia and Ireland; and only covers 80 percent of the population in the UK.⁷⁰⁰

Telecom submission

64. Telecom submitted that New Zealand mobile network operators have engaged in competition across a number of service components, and that competitive pressures in the New Zealand market have played out more in relation to coverage-based competition than in many other markets, but there has also been service-based and price-based competition.⁷⁰¹

Telecom cross-submission

65. In its cross-submission, Telecom stated that not only are prices tracking down over time, but there has also been vigorous non-price competition in response to consumer demand for new and improved products and for other enhancements such as improved coverage, greater roaming capability, and faster, more reliable networks. Telecom submitted that this consumer demand has generated ongoing investment.⁷⁰²

66. In addition, Telecom submitted that even if MTR prices are above cost, this does not mean that there is not "workable competition". Telecom argued that above cost MTRs on a stand alone basis are also not an indicator of an absence of workable competition due to the two-sided nature of the market and the more general need in a competitive market to recover common costs from relatively inelastic demand.⁷⁰³

NERA submission

67. NERA submitted that the Commission presented evidence of the evolution of network technology in the Draft Report, but did not recognise this as a form of vigorous (dynamic) competition between Telecom and Vodafone. NERA submitted that Telecom and Vodafone have been engaged in a "technology race", where repeated sunk investments are made to provide new or upgraded services to customers. NERA further submitted that these investments are an indication of vigorous competition between the two mobile operators, with end-users clearly benefiting through higher speeds and better services.⁷⁰⁴

68. NERA concluded that competition occurs across a wide range of dimensions, and the Commission's analysis is too narrowly focused on comparing price and call usage in New Zealand with other OECD countries.⁷⁰⁵

2degrees cross-submission

69. 2degrees submitted that assertions of a competitive market from the incumbents are self-evidently incorrect and an insult to consumers. In particular, 2degrees submitted that:⁷⁰⁶

- voice utilisation rates are low because it is too expensive to make calls to and from mobiles, especially off-net mobile calls;

⁷⁰⁰ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, paragraph 95.

⁷⁰¹ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 28.

⁷⁰² Telecom, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 10-11, paragraph 32.

⁷⁰³ *ibid*, p 11, paragraph 35.

⁷⁰⁴ NERA, *Submission on the MTAS Draft Report*, 28 July 2009, p 4.

⁷⁰⁵ *ibid*, p 5.

⁷⁰⁶ 2degrees, *Cross-submission on Draft Report on MTAS*, 18 August 2009, p 16-17, paragraph 4.7.

- incumbents' returns are likely well in excess of any reasonable measure;
- despite this, even Telstra has been deterred from entering due to the artificially created entry/expansion barriers;
- fixed-line customers have subsidised the incumbents for a number of years;
- networks are closed – there is virtually no cross-net traffic;
- there is ample anecdotal evidence of dual handsets; and
- despite NERA's assertions, Telecom clung on to old technology to the frustration of numerous overseas travellers. Concept Economics highlight in its cross-submission the lack of dynamic competition, calling this "the avoidance of competition rather than rivalrous dynamic change".

Concept cross-submission

70. In response to Vodafone's submission that New Zealand prices rank well compared with other OECD countries, Concept submitted that this is misleading. In particular, Concept submitted that the usage assumptions employed in the OECD rankings are no longer reflective of typical demand in OECD countries which distorts the results. Concept submitted that while the average voice usage across OECD countries is 120 minutes per month, the medium usage basket contains only 65 minutes⁷⁰⁷. Concept pointed out that the OECD will be updating the baskets this year to take account of changing usage patterns and tariff structures.⁷⁰⁸
71. Furthermore, Concept compared Vodafone Australia plans with the Vodafone NZ plans that are included in the OECD analysis. Concept noted that when comparing the low usage plans, the Australian consumer would be much better off because although the Australian plan is slightly more expensive, the customer receives around 117 extra minutes, 100 free texts and has no contract term. Concept reached similar conclusions when comparing the Vodafone NZ 'Easy 20' and 'Easy 60' plans to similar plans offered in Australia.⁷⁰⁹
72. Concept also contended that the primary driver of the pricing plans used in the OECD rankings may not have been competition, but rather the threat of regulatory intervention. Concept suggested that Vodafone may have been incentivised to offer plans that improved the OECD rankings, but which did not necessarily improve consumer wellbeing. Concept concluded that:⁷¹⁰

'Following the introduction of the Base plans in 2006, New Zealand's ranking in international price comparisons was artificially enhanced. The 'representative' price of mobile services in New Zealand dropped dramatically, despite the fact that the price of most mainstream offerings remained steady.'

Impact of above-cost MTRs and on-net discounting

⁷⁰⁷ The low usage basket contains 30 minutes and the high usage basket contains 140 minutes.

⁷⁰⁸ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 3.

⁷⁰⁹ *ibid*, p 4-6.

⁷¹⁰ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 6-9.

TUANZ submission

73. TUANZ submitted that the effect of above-cost MTRs has been to create closed user communities for the incumbent mobile carriers, and that this situation is anti-competitive in the worst possible way, and highly disadvantageous to users who are entitled to expect fair and open market competition.⁷¹¹

Vodafone

74. In response to the Draft Report, Vodafone submitted that reductions in MTRs are unlikely to increase competition in the mobile market, as MTRs are both a cost and a source of revenue for mobile operators. For example, Vodafone argued that while many of 2degrees' customers' calls will be off-net (and hence incur wholesale termination charges), so too will be many of its incoming calls. According to Vodafone, there is no evidence to suggest that net payments from 2degrees to the existing mobile operators will be significant.⁷¹²

75. In relation to SMS, Vodafone has submitted that there are a number of unique features about SMS termination that mean it has to be analysed differently from voice termination.⁷¹³ In particular, the two-way nature of SMS communication means that both parties typically send messages back and forth.⁷¹⁴

'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.'

76. As a result, Vodafone submitted that SMS traffic flows between networks will be largely balanced. This means that mobile operators both pay and receive termination fees, and that the effective SMS termination rate will be significantly lower than the headline rate.⁷¹⁵

77. Vodafone disagreed with the Commission's view that in the presence of on-net price discrimination, the extent to which 2degrees is able to compete in the market is likely to be highly dependent on the termination rates it faces. Vodafone submitted that this:⁷¹⁶

'... makes no sense in the context of an offer such as BestMate or Family. These offers apply only to closed user groups of either 2 (in the case of BestMate) or 4 (in the case of Family) users on the same network. To match these offers, a new entrant does not need to draw the whole of its rival's mobile network on to its own to match the benefits available under the Vodafone BestMate offering. Instead, it only needs to attract 2 people to its network. Similarly, with Family, a new entrant only needs to attract 4 consumers to its network.'

78. Vodafone repeated this argument in its written opening statement for the MTAS Conference, noting that of its subscriber base:⁷¹⁷

- less than [] VNZCOI pre-pay customers subscribe to BestMate;
- there are approximately only [] VNZCOI "Family" hubs; and

⁷¹¹ TUANZ, *Submission on MTAS Draft Report*, 28 July 2009, p 2.

⁷¹² Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, paragraphs 354 to 366.

⁷¹³ *ibid*, paragraph 369.

⁷¹⁴ *ibid*, paragraph 374.

⁷¹⁵ *ibid*, paragraphs 379 to 381.

⁷¹⁶ Vodafone, *Cross-submission on the MTAS Draft Report*, 18 August 2009, p 60, paragraph 213.

⁷¹⁷ Vodafone, *Written Opening Statement*, 31 August 2009, page 19

- over [] VNZCOI active pre-pay customers do not subscribe to an on-net bundling offer.

Telecom

79. In its submission on the Draft Report, Telecom challenged the Commission's assertion that above-cost MTRs represent a barrier to entry and expansion in the retail mobile market, citing the example of Bulgaria. Telecom submitted that Bulgaria has the highest MTRs in the EU (13.5 eurocents per minute) and one of the highest mobile penetration rates in the world (135%), yet in this environment Vivatel was able to significantly grow its share in a market with two incumbents. Telecom noted that between 2006 and 2009 Vivatel was able to grow from 1 percent market share to 11 percent market share.⁷¹⁸
80. Furthermore, Telecom noted that Bell South (subsequently Vodafone New Zealand) launched a mobile network in 1993 using commercially negotiated MTRs.⁷¹⁹
81. In relation to on-net pricing discounting, Telecom submitted that on-net pricing is prevalent in markets with BAK for mobile termination and exists in 27 out of the 30 OECD mobile markets. Telecom submitted that on-net pricing is reflective of marketing strategies adopted by the various operators and bears no relationship to MTM MTRs.⁷²⁰

Covec

82. Covec submitted that changing the MTM termination rate affects the intensity of competition between mobile networks when there are on-net discounts. In particular, Covec submitted that:⁷²¹

‘With on-net discounts, to the extent that consumers make some of their calls randomly to the subscribers of the same network (as opposed to making all their calls to a fixed ‘calling circle’), consumers benefit when the size of the network increases. This is because when a new subscriber joins a network, there is some probability that the existing subscribers of the same network will want to call the new subscriber, and that they will be able to do so at the cheaper on-net rate. Therefore, everything else equal, a larger network is more valuable to its subscribers, although the strength of this effect depends crucially on how much subscribers care about the size of the network as a whole rather than simply which network their friends and family belong to.’

83. Accordingly, Covec argued that on-net pricing induces network effects, and these effects strengthen the incentive to acquire new customers. Following on from this, Covec submitted that the greater incentive to acquire new customers means that firms compete more intensely in the presence of network effects, which leads to lower prices, lower profits and greater consumer surplus.⁷²²
84. Covec further submitted that:⁷²³

‘...the MTM termination rate partially determines the strength of these network effects, to the extent that it affects the differential between on- and off-net prices. If a lower MTM termination rate leads to a smaller differential, the network effects are reduced. By the same logic as above, this reduces the

⁷¹⁸ Telecom, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 72.

⁷¹⁹ *ibid*

⁷²⁰ *ibid*, paragraph 75.

⁷²¹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p 27-28, paragraph 126.

⁷²² Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p 28, paragraph 127.

⁷²³ *ibid*, paragraph 128.

intensity of competition between networks, leading to higher prices overall and lower consumer surplus.’

85. Accordingly, Covec implied that lower termination rates may actually reduce the level of competition in the mobile market. However, at the MTAS Conference Covec clarified this position, noting that this is based on a model which contains a number of assumptions around the way in which firms compete. Covec commented that:⁷²⁴

‘**CHAIR:** So in terms of the economic position the suggestion that a reduction [in termination rates] would reduce intensity of competition and lead to higher prices, you accept under the current market situation would not be the case?’

DR SMALL: Conditional on where you're going to with that reduction, yes.

CHAIR: Yeah, yeah, cost-based.

DR SMALL: Yeah.’

86. After the MTAS Conference, Covec provided written comments on the ‘whiteboard example’ presented by the Commission at the conference. Covec argued that:⁷²⁵

‘... since low on-net prices are driven by closed user group pricing, it does not follow that the average price to call anyone on-net is low. Low prices are only available for calls to small groups. The task would be very much tougher for a new entrant if these voice plans were available to anyone on-net. Under the current structure of prices, it is not necessary for an entrant to offer low any-net pricing to compete with the existing on-net pricing.’

Concept

87. Concept Economics submitted that perhaps the central problem facing 2degrees is the barrier to entry and expansion created by the combination of above cost termination charges and on-net retail price discounts.⁷²⁶ Concept argued that where the incumbent mobile networks use heavy on-net discounting:⁷²⁷

‘... it is very difficult for an entrant to acquire a customer base because if a customer churns to the entrant, that customer knows that their contacts (eg, friends and customers) will be charged high off-net prices to call them, and similarly that they will have to pay high fees to reach those contacts, and this will reduce the propensity of the customer to switch in the first place.’

88. According to Concept, the above circumstances will lead to a traffic imbalance, which will be exacerbated where the entrant offers lower off-net prices in order to be able to attract customers.⁷²⁸

‘To be able to offer discounts to the same range of customers, the entrant, having fewer on-net customers, would likely have to discount some off-net calls. Thus, their customers will call off-net relatively more often than customers of the incumbents. However, the size of the outpayments can also mean that the entrant is simply unable to viably offer customers a pricing package that will lure them away from the incumbent networks.’

⁷²⁴ MTAS Conference Transcript, 2 September 2009, p 40, lines 27-32.

⁷²⁵ Covec, *Comments on the MTAS Conference ‘Whiteboard’ Examples*, 9 October 2009, paragraph 17.

⁷²⁶ Concept Economics, *MTAS: Cross-submission*, 18 August 2009, p 16-17.

⁷²⁷ Concept Economics, *Submission on the MTAS Draft Report*, 28 July 2009, page 16.

⁷²⁸ Concept Economics, *Submission on the MTAS Draft Report*, 28 July 2009, page 17.

89. In its cross-submission on the Draft Report, Concept developed an example to illustrate the difficulties faced by a small entrant when there is on-net discounting and high MTRs. According to Concept:⁷²⁹

‘Above cost termination charges exactly provide the foundation on which incumbents can add cost to the entry and expansion of competitors. When termination costs, whether of calls or texts (and texts are critical for entry at the low end of the market), exceed costs, on-net retail price discounts can be used to raise the entrant’s costs, thereby preventing the entrant from cutting prices towards more efficient levels, and possibly forcing exit.’

90. The Concept example is based on Vodafone’s Starter 2000 plan. Concept consider the ability of a small entrant such as 2degrees to compete with such a plan, and estimate the margins that would be earned by Vodafone and 2degrees respectively in offering such a plan, given various assumptions about wholesale MTRs, market shares, and customer usage patterns. According to Concept:⁷³⁰

‘In all cases, the assumptions made are designed to overstate 2degrees final margins.’

91. Given their assumptions about calling and texting patterns, including the total volumes of calls and texts made by the customer and the split between on-net and off-net, Concept estimated the average retail revenues earned by Vodafone on the Starter 2000 plan. Concept then estimated wholesale payments made (on outgoing off-net calls and texts) and wholesale revenues earned (on incoming off-net calls and texts), using the MTRs contained in the Vodafone initial undertaking. Vodafone’s wholesale payments to 2degrees are relatively low, reflecting Concept’s assumption that Vodafone customers make a relatively low proportion of off-net texts and calls, while 2degrees wholesale payments are substantially greater (reflecting the assumptions made by Concept around the proportion of 2degrees traffic that is off-net).

92. Concept concluded that:⁷³¹

‘On-net discounting, coupled with termination rates that greatly exceed costs, sharply cut an efficient entrant’s margins relative to those of the incumbent duopolists. The effect is to force the entrant to subsidise the incumbents, thereby preventing the entrant from competing vigorously with the incumbents, putting downward pressure on prices, and possibly forcing it out of business.’

Dr Haucap

93. In a cross-submission on the Draft Report on behalf of 2degrees, Dr Haucap argued that a combination of on-net discounting and high MTRs can act as a strategic barrier to entry in the retail mobile market.⁷³² He referred to statements by the European Commission and the ERG, to the effect that high MTRs can make it difficult for small mobile operators to enter and compete with large mobile operators, and noted that this is consistent with the view taken by the Commerce Commission in its Draft Report.
94. Dr Haucap submitted that when large mobile operators offer discounts for on-net calls, a small mobile operator will be disadvantaged. He illustrated this effect with a hypothetical

⁷²⁹ Concept Economics, *Cross-submission on the MTAS Draft Report*, pages 16 to 17.

⁷³⁰ *ibid*, 18 August 2009, page 17.

⁷³¹ *ibid*, page 22.

⁷³² Haucap submission, *Short report on the assessment of the expected costs and benefits of lower mobile termination rates in New Zealand*, 18 August 2009, paragraphs 3 and 4.

example where a large incumbent mobile operator (I) and a small entrant operator (E) compete for a new subscriber. In order to be able to compete with the incumbent for the new subscriber, the entrant has to recover the same level of retail revenue. According to Dr Haucap, the entrant would have to offer lower on-net and off-net prices in order to be competitive, and would also earn a smaller margin in the event that it were successful in attracting the new subscriber.

95. According to Dr Haucap:⁷³³

‘The necessity for operator E to discount off-net prices most likely also leads to an imbalance in traffic flows, as calls from E to I are less expensive than calls from I to E. It may be important to note that the Covec report is actually imprecise in this respect. In paragraph 162 of the Covec report it is noted that “if all customers are identical (...) traffic flows will be balanced regardless of market share.” The Covec report furthermore notes that “if network A’s customers make more calls on average than network B’s then there will be a net traffic flow from A to B for any given market share”. This argument is completely correct under the assumption that the two networks’ prices do not differ. If, however, prices differ between networks then the flow of traffic obviously depends on the respective prices for off-net calls.

...

A reduction in MTRs, therefore, clearly serves to reduce barriers to entry ... in the retail mobile market.’

96. Dr Haucap also submitted that:⁷³⁴

‘... the welfare effects of enhanced competition are notoriously difficult to estimate due to the dynamic nature of competition. ... it is often considered a good approach for public policy to concentrate on market liberalisation and safeguarding the competitive process. Hence, the focus should be on removing artificial barriers to entry and preventing incumbent firms from erecting strategic barriers to entry as far as possible in order to let the firms compete on a level-playing field without further Government intervention.’

2degrees

97. In its submission on the Draft Report, 2degrees argued that a key barrier to infrastructure-based entry and expansion in the New Zealand mobile market is the combination of high MTRs and low on-net/high off-net retail pricing.⁷³⁵

98. 2degrees noted that if traffic between networks is balanced, the actual MTR will be irrelevant.⁷³⁶ However, 2degrees submitted that retail price distortions are likely to lead to traffic imbalances, and in doing so are likely to affect competition in the mobile market.

99. In its cross-submission on the Draft Report, 2degrees reiterated that above-cost MTRs combined with on-net discounting represent a significant barrier to entry and expansion. According to 2degrees, Vodafone and its experts have ignored a crucial point highlighted by Concept and Dr Haucap, namely that traffic flows between networks will depend on relative off-net prices.⁷³⁷

⁷³³ *ibid*, paragraphs 6-8.

⁷³⁴ *ibid*, paragraph 11.

⁷³⁵ 2degrees, *Submission on the MTAS Draft Report*, 28 July 2009, paragraph 1.6.

⁷³⁶ *ibid*, paragraph 5.25-5.27.

⁷³⁷ 2degrees, *Cross-submission on the MTAS Draft Report*, 18 August 2009, paragraphs 7.1 to 7.8.

Retail FTM/tolls market**Vodafone**

100. Vodafone submitted that 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. Vodafone submitted that:⁷³⁸

‘...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.’

Covec

101. In relation to competition and margins in the FTM market, Covec noted that economic theory predicts that when the intensity of competition increases, the difference between price and cost decreases. For example, Covec noted that in a simple Cournot model, price converges to marginal cost as the number of firms increases and in a Hotelling model of product differentiation, price also converges to marginal cost as the firms become less differentiated. Accordingly, Covec submitted that if reductions in the MTR increase the intensity of competition in the FTM market, we should expect to see FTM pass-through increasing and FTM price-cost margins reducing.⁷³⁹ However, Covec submitted that:

- there is no evidence that reductions in the MTR have led to an increase in the rate of pass-through in the FTM market; and
- margins have not been decreasing.

102. Covec submitted that over the entire period from 1997 to 2008 the MTR decreased by about 33 cents per minute, while the FTM margin increased by more than 7 cents per minute. Covec argued that this is the opposite of what you would expect to see if reductions in the MTR do increase the intensity of competition in the retail FTM market.

103. Covec finally noted that:⁷⁴⁰

‘The Commission’s conclusion that average retail prices for FTM calls are substantially above the cost of supplying these services due to above-cost MTRs is therefore quite incorrect. MTRs have fallen substantially while FTM margins have not. If there s any lack of competition in the FTM market, it does not appear to have been caused by the level of the MTR.’

TelstraClear

104. TelstraClear submitted that it agrees with the Commission’s analysis that “above-cost MTRs will continue to dampen competition in the supply of retail FTM calls, as fixed operators will be limited in their ability to compete with integrated suppliers”.⁷⁴¹

MTAS Conference

105. In response to a question regarding the impact of ‘artificially high’ termination rates on the level of competition in the retail FTM/tolls market, CallPlus stated that.⁷⁴²

⁷³⁸ Vodafone, *Submission on the MTAS Draft Report*, 28 July 2009, p 56, paragraph 187.

⁷³⁹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p 23, paragraph 109.

⁷⁴⁰ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p 24, paragraph 112.

⁷⁴¹ TelstraClear, *Submission on the MTAS Draft Report*, 28 July 2009, p 4, paragraph 5.

‘...by artificially high I mean to a point where they can do things like have on-net pricing and still make a healthy margin and then have off-net pricing and make a huge margin, and I think 2degrees alluded to a penalty rate. And the ability by having those huge margins to also be able to cross-subsidise across into other product lines like broadband with like 12 month free offers and so on and so forth.

So it's simply a matter of using strategies of cross-subsidies on-net and bundles to make price points in other products as part of a bundle when they're selling to a customer. And typically, you know, customers tend to buy a bundle of products these days far more than they used to ten years ago. It's very difficult for a fixed line only operator to compete with that.’

106. Concept Economics noted that:⁷⁴³

‘... in the present situation an above cost fixed to mobile rate creates a distortion when a mobile carrier is able to use on-net pricing, which means that their own customers are going to be more inclined to pick up their mobile independent of the fact, because they can essentially set their retail price without direct regard to a termination fee, they're only incurring the cost of terminating the call and we've agreed that that is lower than the fixed to mobile fee.

But in contrast, the fixed carrier has to think about what is a real cost to them. It's not a real resource cost but it's a real cost to them. And as has been pointed out by both Telecom and Vodafone, when those underlying costs differ that affects the way you set prices at the margin and it affects all of your prices. So you're essentially forcing the two types of carriers, the fixed carriers and the mobile carriers, to compete on an uneven footing and that will only distort prices relative to cost, distort consumer choice, and that's generally inefficient.’

107. TelstraClear stated:⁷⁴⁴

‘But what I think we do see is that to the extent that mobile termination rates, wholesale mobile termination rates are significantly above cost, it does essentially provide a distortionary effect within the market through the issues that have been discussed around cross-subsidy, from the above cost mobile termination.

....

So I think from a non-integrated fixed line perspective, above cost mobile termination does allow some parties to cross-subsidise while others aren't, and that does have a detrimental impact on competition across the market.’

⁷⁴² MTAS Conference Transcript, 2 September 2009, p 51, lines 13-22.

⁷⁴³ *ibid*, p 53-54.

⁷⁴⁴ *ibid*, p 62.

APPENDIX 4: SUBMISSIONS ON BENCHMARKING ISSUES⁷⁴⁵

Summary of Draft Report benchmarking

1. Table 37 summarises the benchmarks used in the Draft Report:

Table 37: Commission's Draft Report voice benchmarks

| | MTR Home Currency | Blended exchange rate | MTR in NZcpm | MTR effective |
|-------------|----------------------|-----------------------------|-----------------|------------------|
| Australia | \$0.058 | 0.8872 | 6.54 | 2009 |
| Denmark | DKK 0.54 | 4.5881 | 11.77 | 2009 |
| France | €0.0265 | 0.5490 | 4.83 | 2008 |
| Israel | ILS 0.173 | 2.4171 | 7.16 | 2009 |
| Malaysia | MYR 0.0873 | 1.6669 | 5.23 | 2008 |
| Netherlands | €0.056 | 0.5364 | 10.44 | 2008 |
| Norway | NOK 0.48 | 5.0379 | 9.53 | 2008 |
| Sweden | SEK 0.3675 | 5.2834 | 6.96 | 2008 |
| UK | £0.0478 | 0.3813 | 12.52 | 2009 |
| | | Median | 7.16 | |

Source: Commerce Commission (2009).

Pricing Principles

Draft Report

2. In the Draft Report,⁷⁴⁶ the Commission considered whether a cost-based pricing principle or a bill-and-keep (BAK) pricing principle should apply to the MTAS. The Commission concluded that a cost-based pricing principle was likely to give best effect to the purpose statement in section 18 of the Act.⁷⁴⁷ According to the Commission's preliminary view set out in the Draft Report, a cost-based MTAS price was likely to promote efficient competition based on the underlying cost of supplying the MTAS, and that neither calling nor network externality effects were likely to justify any departure from a cost-based mobile termination rate.⁷⁴⁸
3. The Commission did acknowledge that there may be circumstances in which BAK may merit further consideration in the future, for example where cross-network traffic is relatively balanced, where BAK pricing has emerged as a commercially negotiated

⁷⁴⁵ Note: Unless otherwise stated, submissions made prior to 30 June 2009 have been addressed in the Draft Report and where an issue has been raised by a party on more than one occasion, to avoid repetition, the Commission has noted the initial instance the issue was raised.

⁷⁴⁶ 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, p97-113

⁷⁴⁷ *ibid*, paragraph 423.

⁷⁴⁸ *ibid*, paragraph 400.

approach, or where calling externalities are present.⁷⁴⁹ The Commission also noted that the pricing principle for the existing fixed PSTN interconnection service in the Act includes both cost-based and BAK pricing options, and proposed a similar pricing principle for the MTAS. Specifically, the Commission proposed a FPP based on the forward-looking long-run incremental costs of the MTAS, including a reasonable contribution to forward-looking common costs, or the Total Service Long-Run Incremental Cost (TSLRIC) of the service. The FPP proposed by the Commission in the Draft Report also included pure BAK and hybrid BAK options where the Commission considers that the TSLRIC principle would not give best effect to the purpose set out in section 18 of the Act.

Submissions on the Draft Report

4. A joint submission from Woosh and Kordia also supported the use of an FPP based on pure LRIC, excluding any allowance for the recovery of common and fixed costs.⁷⁵⁰ Woosh/Kordia referred to the European Commission recommendation to set MTRs based on LRIC.
5. In its submission on the Draft Report, 2degrees stated that the Commission's benchmarks should be lower than those outlined in the Draft Report because they believed the IPP would only be in place for a short period of time, which if below cost, would cause harm only for a short period, and that the harm to competition would outweigh these costs.⁷⁵¹
6. 2degrees also stated that they considered BAK to be the regime that best met the purpose of section 18 of the Act, noting that:⁷⁵²
7. Elsewhere in its submission, 2degrees indicated that the FPP should be based on LRIC, and that there may be good reasons to reduce the MTAS price below cost to allow for a calling externality.⁷⁵³
 - BAK is not materially below cost;
 - the harm from BAK has not been identified;
 - Many dynamic markets function under a BAK arrangement;
 - Traffic symmetry often occurs; and
 - BAK has been advocated by the Commission and domestic and international operators
8. Elsewhere in its submission, 2degrees indicated that the FPP should be based on LRIC, and that there may be good reasons to reduce the MTAS price below cost to allow for a calling externality.⁷⁵⁴

⁷⁴⁹ *ibid*, paragraph 424.

⁷⁵⁰ Woosh/Kordia submission, 28 July 2009, paragraphs 2.6 to 2.8.

⁷⁵¹ 2degrees Submission on Draft Report, 28 July 2009, p27.

⁷⁵² 2degrees Submission on Draft Report, 28 July 2009, p-30-39.

⁷⁵³ *ibid*, paragraph 4.2.

9. 2degrees then offered the following alternate options for the pricing principles:⁷⁵⁵
- An IPP equal to the current fixed termination rates;
 - Forward-looking LRIC or pure TSLRIC (no allocation for common costs); and
 - BAK.

Cross-Submissions on the Draft Report

10. In cross-submissions on the Draft Report Vodafone agreed that TSLRIC is the appropriate pricing principle for the MTAS.⁷⁵⁶

MTAS Conference

11. At the MTAS Conference both Vodafone and Telecom agreed that TSLRIC is the appropriate pricing principle.
12. Vodafone stated:⁷⁵⁷
- ‘... our position remains that there is no evidence, I don't think we've seen it in the last two days really, to depart from TSLRIC as a basis for thinking about what sensible and efficient termination rates should be ...’
13. Telecom, in their closing statement outlined its view that there was a consensus that an appropriate pricing principle had been agreed on.⁷⁵⁸
- ‘The most important of those is that I think everyone agrees with the principle of TSLRIC price termination rates. What's at issue here is how we get there.’
14. TelstraClear also supported the Commission's preliminary view that regulation be based on the forward-looking costs of the MTAS, and that TSLRIC rather than LRIC should be the relevant cost standard. According to TelstraClear.⁷⁵⁹
- ‘... the existing scheme of the Act, including PSTN interconnection, UCLL and subloops, was all predicated on a TSLRIC basis not a LRIC basis. It's not clear to TelstraClear why you would depart from the TSLRIC principle which is set out in the Act simply for the purposes of mobile termination.’
15. Considerable discussion was conducted on the merits of BAK applied to SMS traffic. Concept, on behalf of 2degrees, stated that while there is unlikely to be a strong calling externality justification for below-cost SMS termination rates, the actual cost of terminating SMS traffic is likely to be so small that BAK would be an appropriate pricing principle for SMS.⁷⁶⁰

⁷⁵⁴ *ibid*, paragraph 4.2.

⁷⁵⁵ *ibid*, paragraph 6.22.

⁷⁵⁶ Vodafone cross-submission, 18 August 2009, paragraph 217

⁷⁵⁷ MTAS Conference Transcript, 3 September 2009, page 223.

⁷⁵⁸ MTAS Conference Transcript, 3 September 2009, page 231

⁷⁵⁹ MTAS Conference transcript, page 101.

⁷⁶⁰ MTAS Conference transcript, pages 103 and 104..

16. 2degrees noted that most of its international agreements for SMS are based on BAK.⁷⁶¹
17. NERA, on behalf of Telecom, stated that it did not have a firm view on BAK for SMS, but submitted that the TSLRIC of SMS termination will be greater than the pure LRIC.⁷⁶²
18. Telecom expressed some concern over a sudden shift to BAK for SMS when they stated:⁷⁶³
 ‘(So,) I’d be pretty nervous about a sudden shift from today’s world to bill and keep, or bill and keep for one service on the platform and not for the other’
19. Vodafone submitted that while the default for SMS termination in international agreements often involves no charging, this primarily relates to person-to-person communication which is usually in balance. Such commercial arrangements are monitored closely, and where traffic imbalances do emerge, for example as a result of commercial spamming, the parties may negotiate the implementation of charging regimes.⁷⁶⁴
20. With regard to calling externalities and the implications for an efficient MTAS price Dr Haucap, on behalf of 2degrees, stated that while a calling externality could in principle justify an MTAS price below TSLRIC, he was not convinced of such an externality in the present case.⁷⁶⁵
21. Dr Ralph, on behalf of 2degrees, also noted that prices should only be adjusted where there was a calling externality that created a market failure. Dr Ralph doubted that this could be demonstrated, and was disinclined to place much weight on such an effect.⁷⁶⁶

Should the Commission benchmark against cost-modelled rates or regulated rates?

Draft Report

22. In the Draft Report, the Commission considered whether benchmarking against cost modelled rates or regulated MTRs best served the purpose of the investigation.
23. The Commission assessed the benchmarking presented by both Covec⁷⁶⁷, on behalf of Vodafone, and NERA⁷⁶⁸, on behalf of Telecom, in their submissions and concluded that regulated MTRs, which both Vodafone and Telecom used in their benchmarking, were not forward-looking cost based rates, as required by the proposed IPP.
24. The Commission noted that the countries in the benchmark set exhibited a wide range of differences between their regulated and cost modelled rates and concluded there was no consistent way to reconcile these differences. This further reinforced the Commission view that cost modelled rates present the more robust and transparent benchmarks.

⁷⁶¹ *ibid*, page 106.

⁷⁶² *ibid*, page 104-105.

⁷⁶³ *ibid*, page 105.

⁷⁶⁴ *ibid*, pages 107 to 108.

⁷⁶⁵ *ibid*, page 97.

⁷⁶⁶ *ibid*, page 103.

⁷⁶⁷ Covec, *Benchmarking Mobile Termination Rates*, 6 May 2009. p.25, Table 7.

⁷⁶⁸ NERA, *MTAS Benchmarking Response to Commission Comments on Undertakings*, 6 May 2009, p.9, Table 3.

25. The Draft Report concluded that the most appropriate way to benchmark forward-looking costs was to use cost modelled rather than regulated rates, as allowing for the notional adjustments that are exhibited in regulated rates would preserve distortions in the market and would not fully identify the benefits that would flow from an immediate movement to cost-based rates.

Submissions on the Draft Report

26. Vodafone⁷⁶⁹, Telecom⁷⁷⁰ and Covec⁷⁷¹ submitted that the appropriate benchmarks are the regulated MTRs in foreign jurisdictions, rather than the cost modelled outputs and noted there are a number of reasons for regulating above the cost modelled rate. They further noted that the IPP refers to prices, rather than costs, and therefore the benchmarking should be conducted against regulated MTRs rather than cost modelled estimates.

Vodafone

27. Vodafone observed⁷⁷² that eight of the nine benchmarked countries do not regulate at the cost modelled rate. Vodafone suggest that this is because regulators recognise that cost models are subject to the risk of error and exhibit caution when setting regulated prices.
28. Vodafone argued that asymmetric risk of regulatory error could arise if MTRs were set too low, and this is more harmful than setting MTRs too high.
29. Vodafone noted that foreign regulators set rates above cost modelled rates due to the negative consequences resulting from regulating MTRs below cost.

Telecom

30. Telecom⁷⁷³ submit that the Commission should not use the cost model estimates in the benchmarking set without carefully assessing their comparability to New Zealand. Telecom also submits that other regulators have adjusted the model outputs to more accurately reflect the real world situations and that the Commission's cost standard can never be achieved in the real world and may affect future investment. Telecom also stated in their earlier submission of 6 May 2009⁷⁷⁴ that the Commission should benchmarks against regulated rates, rather than cost-modelled rates because of asymmetric risk of regulatory error.

NERA

31. NERA⁷⁷⁵ submitted that the Commission should benchmark against regulated rates rather than cost modelled rate because NERA understood that the reason some countries set their regulated rates above the cost modelled rates was to recognise that cost modelled rates do not fully reflect reality and the results may be harmful to investment.

⁷⁶⁹ *ibid* p.44-45.

⁷⁷⁰ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, p.19, para 84.

⁷⁷¹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.9, para 43

⁷⁷² Vodafone, *Vodafone New Zealand Limited Submission to the Commerce Commission*, 28 July 2009, p.44-45.

⁷⁷³ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, p.19-20.

⁷⁷⁴ Telecom, *Submission Accompanying Revised Undertakings*, 6 May 2009, p.6

⁷⁷⁵ NERA, *Regulation of the MTAS: Review of the Commission's Draft Report*, 29 July 2009, p.9.

Covec

32. Covec⁷⁷⁶ submitted that the ACCC consider cost modelled rates as a lower bound. On this basis, Covec also stated that the regulated Australian rate should be used in the benchmarking exercise rather than the Australian cost modelled rate.

Woosh and Kordia

33. Woosh and Kordia⁷⁷⁷ submit that benchmarking should be based on underlying cost assessments by regulators in preference to regulated prices which overlay those cost assessments.

2degrees

34. 2degrees⁷⁷⁸ submit that they agree with the Commission's preliminary view, outlined in the Draft Report, that benchmarking should be conducted using cost modelled rates rather than regulated rates, but state that they believe the Commission should use a LRIC cost standard similar to those recommended by the EC, or used in the USA.

Cross-Submissions on the Draft Report**Telecom**

35. Telecom,⁷⁷⁹ in their cross submission, noted that if the Commission were to regulate to mimic "workable competition", this would implicitly support benchmarking against real world pricing, rather than against theoretical prices. Telecom also noted that these cost modelled rates have, for the most part, not been adopted by the relevant regulators as a regulated rate in their jurisdictions.

Woosh, Kordia and CallPlus

36. Woosh, Kordia and CallPlus⁷⁸⁰ submitted that the object of benchmarking is, by timely and cost-effective means, to estimate what the regulated price would be as a final price under the FPP.

Vodafone

37. Vodafone, as part of their cross-submission, submitted a paper by Professor Janusz A. Ordovery⁷⁸¹ where Professor Ordovery assesses the regulatory regime implemented by the EC and proposed by 2degrees⁷⁸² in their submission on the Draft Report. Professor Ordovery finds that the cost standard implemented by the EC can only possibly be an efficient pricing outcome if call externalities are relatively larger than access (network) externalities. Professor Ordovery then notes that he does not think this is likely to be true in the mobile market and notes that such an outcome would be inconsistent with existing regulatory views in the magnitudes of such externalities.

2degrees

⁷⁷⁶ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.8.

⁷⁷⁷ Woosh/Kordia, *Submissions to the Commerce Commission in Relation to MTAS Schedule 3 Draft Report*, 28 July 2009, p.4, para 3.1.

⁷⁷⁸ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.17, para 3.2.

⁷⁷⁹ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.11, para 38.

⁷⁸⁰ Woosh/Kordia/CallPlus, *Cross Submissions to the Commerce Commission in Relation to MTAS Schedule 3 Draft Report*, 18 August 2009, p.7, para 5.5.

⁷⁸¹ Professor Janusz A. Ordovery, *Recovering Fixed and Common Costs for Mobile Networks in Europe*, August 4 2008.

⁷⁸² 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.17, para 3.3.

38. 2degrees' view, in their cross-submission,⁷⁸³ was that it was appropriate for the Commission to benchmark against costs. They submitted that a benchmark against regulated rates will not provide any indication of the likely cost of the regulated service under the FPP and will maintain the current distortions in the market.
39. 2degrees⁷⁸⁴ also cross-submitted that Analysys Mason obviously approved of using cost-based models as they note concerns about the glide-path but in doing so took great care to include a number of quotes that make it quite clear that all of the regulators they quote are proponents of reductions in charges such that the end of the glide-path reflect true cost.

MTAS Conference

40. At the MTAS Conference Vodafone⁷⁸⁵ and Telecom,⁷⁸⁶ and their experts reiterated their views that the Commission should be benchmarking against regulated rates.
41. Discussion focussed on whether to use the Australian cost modelled rate or the regulated rate as a benchmark.
42. Mr Wigley stated, on behalf of CallPlus and Kordia, that the cost modelled rate must be used:⁷⁸⁷

‘...I guess one should try and use the best possible information that’s available. The best possible information is not always going to be regulated prices from overseas. In fact that might be the worst possible information, and I’ll give an example shortly

...

The example I wanted to give is Australia, the last time around when the ACCC looked at mobile termination rates, because it’s such a telling example. If we had applied by rote here, the benchmark price there, which was AU 9 cents a minute, we’d have got it wrong. The reason we’d have got it wrong is that the model here has to be, at least at that state, TSLRIC. There is no discretion to move away from TSLRIC.’

43. Mr Wesley-Smith, on behalf of Telecom, stated:⁷⁸⁸
- ‘So all of these [benchmarked] jurisdictions, including Australia, have said and set out that they’re aiming to get a cost-based, cost-oriented, forward-looking cost-based price and they’ve all made a judgement in their role as economic regulator as to what the appropriate rate is and how to get there.’
44. Mr Wesley-Smith also stated:⁷⁸⁹
- ‘...so it doesn’t follow to me how that means you can’t take where the ACCC got to at the end of its process into your benchmark’
45. In response to Commissioner Mazzoleni questioning how, if a regulator considered a cost model estimate to be too low and made an adjustment, as the ACCC did, the adjustment

⁷⁸³ 2degrees, *Cross Submission – Commerce Commission Draft Report on MTAS, 18 August 2009*, p.55-56, para 12.12-12.13.

⁷⁸⁴ Ibid, p.59.

⁷⁸⁵ MTAS Conference Transcript p.129

⁷⁸⁶ ibid, p.122-123

⁷⁸⁷ ibid, p.125-126.

⁷⁸⁸ Ibid p.133

⁷⁸⁹ Ibid, p.133

could be considered to be cost reflective, which the Commission IPP requires, Mr York, on behalf of Vodafone, conceded Commissioner Mazzoleni was making a 'fair point'.⁷⁹⁰

46. Mr York later stated that as he understood it, the ACCC was saying that their cost modelled rate (of approx. AUD6cpm was wrong.⁷⁹¹ Mr Wesley-Smith concurred with this statement later by stating that he thought the ACCC would say their rate of AU9c is a cost-based rate.⁷⁹²
47. On behalf of 2degrees, Ms Lanigan noted that while not passing judgement on whether the Australian cost modelled rate was over- or under estimated, she did state that some models will over estimate and some will underestimate costs and taking an average or median approach, these should even out.⁷⁹³
48. Mr Srzich from Telecom⁷⁹⁴ stated that the Commission was deviating from past practice by benchmarking cost modelled rates

Submissions on revised undertakings – October 2009

Vodafone

49. In their submission on revised undertakings, Vodafone⁷⁹⁵ stated that they agreed with the Commission that the appropriate pricing principle for voice is TSLRIC (inclusive of a contribution to common cost). Vodafone also accept that the IPP should involve benchmarking against cost-based prices, where this means regulated prices rather than cost modelled outputs.

Which countries should be included in the benchmark set?

Draft Report

50. In the Draft Report⁷⁹⁶ the Commission set the benchmarking criteria to include comparable countries who had conducted forward-looking cost-based MTRs informed by TSLRIC modelling of similar services to those outlined in the Draft Report and that accounted for common costs.

Submissions on the Draft Report – Voice benchmarks

Vodafone

51. Vodafone⁷⁹⁷ submitted that both Covec and Analysys Mason indicated that the French cost model was based on historical costs. Vodafone requested that the French cost model be excluded from the Commission's benchmarking set.

Covec

⁷⁹⁰ Ibid, p.129-130.

⁷⁹¹ Ibid, p.131.

⁷⁹² Ibid, p.135.

⁷⁹³ Ibid, p132-133.

⁷⁹⁴ Ibid, p.136.

⁷⁹⁵ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 16 October 2009, p.31, para 110.

⁷⁹⁶ 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, p.111.

⁷⁹⁷ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.46.

52. Covec⁷⁹⁸ also submitted that Hungary and Greece should be included in the benchmarking exercise. Covec recognised that both cost models include some historical costs, but noted that the Commissions criteria allowed cost models to include some historical costs.

Analysys Mason

53. Analysys Mason⁷⁹⁹ submitted that Hungary was overlooked and should be included in the benchmarking set.

Cross-Submissions on the Draft Report - Voice

2degrees

54. In their cross-submission 2degrees⁸⁰⁰ commented on the submissions that Hungary and Greece should be added to the benchmark set. 2degrees concluded that Hungary, being an ex-communist state was likely to have very high cost structures. 2degrees noted that they expected Greece to have unusually high costs due to the large number of islands in the Aegean and Ionian Seas. In 2degrees opinion, these would create issues with coverage and backhaul. For these reasons 2degrees held the belief Greece and Hungary should not be included in the benchmark set.

Concept Economics

55. Concept⁸⁰¹ noted in their cross-submission that with, respect to France, the regulator ARCEP used a bottom-up cost model and populated it with data drawn from the regulatory accounts, which were in historical cost terms. However, Concept noted, ARCEP tested the effect of using current costs instead of historical costs in the model and found it only made a 2% difference in their cost estimates. On this basis Concept submitted that France should be included in the benchmarking set.
56. Concept also noted in their cross-submission that the vast bulk of local call termination between fixed and mobile operators was reciprocally terminated at USD 0.0007 per minute. Concept acknowledged this rate was not determined by a cost model but noted that operators had the option of appealing this rate through cost studies of call termination on their network. Concept were not aware of any incidences of an operator exercising this option. From this, Concept inferred that USD0.0007 (NZD0.001) was an appropriate cost estimate for mobile termination and it should be considered a de facto LRIC estimate for mobile termination and a benchmark for the USA should be included in the benchmark set.

2degrees letter to the Commission of 16 December 2009

57. On 16 December 2009 2degrees⁸⁰² wrote to the Commission outlining the flaws it considered were contained in the Commission's letter of 3 December 2009, where the Commission stated its preliminary view that:⁸⁰³

‘...the rates in the Telecom 28 October proposal appear likely... to be capable of being closely considered for being recommended for acceptance.’

⁷⁹⁸ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.9, para 45-49.

⁷⁹⁹ Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.7-8.

⁸⁰⁰ 2degrees, *Cross Submission – Commerce Commission Draft Report on MTAS*, 18 August 2009, p.60, para 14.10

⁸⁰¹ Concept Economics, *MTAS: Cross-Submission*, 18 August 2009, p.42.

⁸⁰² 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009.

⁸⁰³ Commerce Commission, *Process for the final stage of MTAS investigation*, 3 December 2009.

58. 2degrees stated that they considered the new preliminary view to be flawed and believed that in adding Hungary to the benchmark set, the Commission was “seemingly in an effort to ‘shoehorn’ Telecom’s October rates into a justifiable range”⁸⁰⁴.
59. 2degrees then stated that there is significant evidence that many regulators consider that their own cost estimates to be too high and note that WIK Consult, the Commission’s expert consultants stated at the MTAS Conference that they considered the cost of the MTAS in New Zealand to be lower than those they modelled for Australia in 2009, while the Telecom undertakings set the rates at almost twice the Australian cost.

Submissions on the Draft Report - SMS

2degrees

60. 2degrees noted that the models that estimated the SMS benchmarks are now dated (2004 and 2005) and that technological progress and increases in volumes over the past 5 years would lead to lower SMS termination rates. 2degrees⁸⁰⁵ submit that the termination costs of SMS are not materially different to zero.

Vodafone

61. Vodafone⁸⁰⁶ expressed concern in their submission that SMS is being considered for regulation given that only one other country has regulated SMS, France, and they set prices at NZ6.5-NZ7.6cpt, which Vodafone state is largely to address concerns with SPAM. Vodafone contrast this with the Commission’s benchmark of 0.95cpt, which is the Israeli benchmark, who Vodafone do not consider to be comparable to New Zealand.
62. Vodafone⁸⁰⁷ note that the Commission’s benchmark set contains only two benchmarks which are significantly different and not comparable to New Zealand. Because of this Vodafone believe the Commission cannot place any reliance on these benchmarks.

Cross-Submissions on the Draft Report – SMS

2degrees

63. 2degrees⁸⁰⁸ cross-submitted that the likely cost of texting can be estimated by data costs as SMS is a form of data. Using prevailing retail data rates 2degrees estimated that the cost of an SMS cannot exceed 0.01c. 2degrees⁸⁰⁹ submit that the very low cost of SMS and the importance of SMS to the New Zealand market mean that SMS should be billed on a B&K basis.

Concept Economics

64. In their cross-submission, Concept state that the cost of SMS is essentially zero since tens of thousands of SMS constitute a tiny amount of data.⁸¹⁰

Vodafone

⁸⁰⁴ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009.

⁸⁰⁵ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.30, para 5.2

⁸⁰⁶ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.5

⁸⁰⁷ *ibid*, p.49

⁸⁰⁸ 2degrees, *Cross-Submission on Commerce Commission Draft Report on MTAS*, 18 August 2009, p.39, para 1.18-6.19

⁸⁰⁹ *ibid*, p.58, para 13.7.

⁸¹⁰ Concept, *MTAS: Cross-Submission*, 18 August 2009, p.21

65. Vodafone⁸¹¹ cross-submitted that 2degrees failed to understand (and ignored) the valid dynamic efficiency argument for selecting the upper benchmark in this case. In Vodafone's view, the Commission was not cautious enough in its SMS benchmarking.
66. Vodafone also stated in their cross-submission that this was especially the case given an efficient price for SMS termination was likely to require a price above the TSLRIC of providing the service on account of the costs of SMS spam.

Comparability

Draft Report

67. In the Draft Report,⁸¹² the Commission considered the issue regarding comparability of the countries used in the benchmarking.
68. The Commission assessed a submission produced by Covec⁸¹³ in which econometric benchmarking was used to estimate the relationship between MTRs and potential cost drivers.
69. The Commission outlined a number of concerns with the approach taken by Covec, these included issues with data limitation, whether the dependent variable used accurately reflected the cost of supplying the MTAS and the selection of some independent variables.
70. The Commission stated that of the statistically significant explanatory variables estimated by Covec. The Commission considered that only urbanisation may be an appropriate cost driver for providing the MTAS. The Commission then noted that all benchmarked countries fell within acceptable range of urbanisation and on the basis of urbanisation no benchmarked country should be excluded.
71. Having assessed the likely cost drivers of the MTAS, the Commission's preliminary view was that it is reasonable to regard the countries within the Commission's benchmark sample as being comparable to New Zealand.

Submissions on the Draft Report

Vodafone

72. Vodafone⁸¹⁴ submit country-specific factors are important and by averaging over a range of benchmarks the Commission will not produce a sensible estimate of costs in New Zealand. Vodafone also state that the Commission's benchmarks could not be considered robust if they did not take into account comparability. Vodafone suggested that the Commission should adjust its benchmarks for comparability. Vodafone⁸¹⁵ also stated in their submission of 6 May 2009 that the WIK Consult report of 22 December 2008 did not consider the effect of transitioning from 2G to 3G technology.

⁸¹¹ Vodafone, *Cross submission*, 18 August 2009, p.55, para 194.

⁸¹² 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, p.130-136

⁸¹³ Covec, *Benchmarking Mobile Termination Rates*, 6 May 2009, p.28-32

⁸¹⁴ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.41, para 126.

⁸¹⁵ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 6 May 2009, p.43, para 133

73. Vodafone submit that New Zealand is not comparable to the two SMS benchmarked countries.⁸¹⁶

Analysys Mason

74. Analysys Mason⁸¹⁷ submit that the Commission does not carry out a robust comparability assessment between cost drivers in New Zealand and the benchmarked countries.

2degrees

75. 2degrees⁸¹⁸ submit that they agree with the comparability assessment conducted by the Commission in the Draft Report.

Covec

76. Covec,⁸¹⁹ in their submission on behalf of Vodafone, noted that Norway was most comparable to New Zealand because of similar land area, population and population density but noted that Norway had a greater GDP per capita. Covec submit that variation in the benchmarked rates indicates that there is no single termination rate for all countries and that local conditions are key drivers in these differences.
77. Covec also submitted that the analysis conducted by WIK Consult⁸²⁰ showed small differences in cost estimates between countries with different characteristics assume different traffic volumes. Covec noted that when they then adjusted these differences in traffic they estimated that larger and/or more sparsely populated countries had higher costs than WIK estimated.

Cross-Submissions on the Draft Report

Telecom

78. Telecom⁸²¹ note in their cross-submission that the IPP appears to be unworkable for reasons Vodafone outline in their submission and state that the Commission's best alternative is to take the observation from the most comparable country and apply that.

2degrees

79. 2degrees⁸²² outlined the key conclusions in the cross-submission by Concept Economics. These being:

- 2degrees CTO Mike Goss stated that there was no reason to suppose that cost in New Zealand would be high when compared internationally and costs in New Zealand are likely to be comparable, or even lower than those in Australia;
- Comparison with Norway on factors such as labour costs, climate, and geographic coverage indicated that the costs of termination in Norway would be likely to be higher than New Zealand.

⁸¹⁶ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.49, para 163

⁸¹⁷ Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.5-6

⁸¹⁸ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.56-57

⁸¹⁹ Covec, *MTAS Regulation Quantitative Analysis*, 27 June 2009, p.8, para 42.

⁸²⁰ WIK Consult, *Cost Driver Sensitivity Analyses with Mobile Cost Models*, 22 December 2008.

⁸²¹ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.12, para 43

⁸²² 2degrees, *Cross Submission – Commerce Commission Draft Report on MTAS*, 18 August 2009, p.56-57

- France should not be excluded from the benchmarked set due to a 2% cost difference between populating their model with historical costs and populating it with current costs.
- The TELRIC methodology applied in the USA, which is consistent with the TSLRIC approach in the Act, should be included in the benchmarking.

Concept Economics

80. Concept, in their cross-submission,⁸²³ addressed the issue of comparability raised by Covec where it was suggested that Norway was the most comparable country from the Commission's benchmark set. Concept noted the following factors would increase the cost of termination in Norway relative to New Zealand

- Coverage: The coverage of population in Norway is higher than in NZ: 97% in NZ compared with 99% in Norway. This translates to a significant difference in the extent of geographic coverage: Norway has landmass coverage of 85%. NZ, on the other hand, has much lower landmass coverage.
- Labour costs – These are substantially higher in Norway and the PPP may not properly adjust for this
- Climate – Norway is much colder than New Zealand which increases the challenges and costs associated with mobile deployment, and has implications for housing of the equipment.

81. Concept also stated in their cross-submission that there is no apparent reason why the costs in New Zealand would be high by international standards. Further to this point, Concept reached the conclusion that costs in New Zealand were likely to be lower than those in Norway, especially given the observation by cost modellers WIK Consult.

82. This observation by Concept was supported by the practical engineering knowledge of Mr Goss that costs in New Zealand would be less than those in Australia. Concept concluded that this signalled costs in New Zealand were likely to be below the median of the benchmark set.

Submissions on Revised Undertakings – October 2009

Vodafone

83. In their submission on revised undertakings, Vodafone⁸²⁴ state that they believe there is no reason to believe Australia is a good comparator country to New Zealand. Vodafone view other countries such as the UK and Norway as good comparators within the Commission's benchmark set. Vodafone also note that the ACCC stated that it believes their cost model estimate is below the level achievable in reality. Vodafone state that therefore, even if Australia is comparable the cost estimate is not an appropriate estimate of cost in New Zealand.

What are appropriate cross-checks?

Draft Report

⁸²³ Concept Economics, *MTAS: Cross-Submission*, 18 August 2009, p.40-42.

⁸²⁴ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 16 October 2009, p.36, para 131.

84. In the Draft Report the Commission used two external sources of information to cross-check the accuracy of the voice benchmark and one cross-check for the SMS benchmark.
85. For the voice benchmark the Commission used the EC recommendation on voice rates for 2012 to cross check with the factual of the voice MTR in 2012. The EC recommendation stated that it expected the average MTR in the EU to be around NZ4.5cpm (€2.5cpm) in 2012. The EC recommendation did not include an allocation for common costs, which the Commission estimated to be approximately 10% of total cost. With a common cost allocation added to it, the EC recommendation became €2.75cpm, or NZ4.95cpm. The Commission's factual for voice in 2012 was NZ5.2cpm.
86. The second voice cross-check used was the voice implied on-net termination rate, which was calculated from confidential data submitted by operators. These calculations returned a implied on-net termination rate of no more than [] **CRI** cpm.
87. The SMS cross checks consisted of the SMS implied on-net termination rate which was calculated as being no more than [] **CRI** cpm.
88. The Commission considered all three cross-checks used supported the benchmarking conducted in the Draft Report.

Submissions on the Draft Report

Analysys Mason

89. Analysys Mason⁸²⁵ submit, on behalf of Vodafone, that the Commission had made incorrect use of the EC target MTR for 2012. Analysys Mason noted that the EC target referenced by the Commission in its analysis was not a formal target issued by the EC. Further, Analysys Mason stated the Commission compared its factual in 2012 to the EC MTR target for 2012 without taking into consideration the significant differences between the Commission's and the EC's costing standards.

Covec

90. Covec⁸²⁶ submit, on behalf of Vodafone, that the EC has a broad view on what constitutes a common cost and estimates the level of these costs to be 25% of the cost of the LRIC cost standard recommended by EC rather than the 10% applied by the Commission in the Draft Report.
91. Having analysed the common costs allocated in the WIK Consult models used in their report of 22 December 2008⁸²⁷ Covec calculated common costs of between 26%-33%. From this, Covec suggested that common costs are likely to be no less than 26% and are likely to be higher.
92. Covec also state that using the implied on-net termination rate as a cross-check for the benchmarking is a difficult exercise as every bundle has numerous components and allocating the cost of the bundle across the components is difficult. Covec also state that mobile plans are priced depending on the value of the subscriber group as a whole and analysis at the level of an individual plan may lead to erroneous conclusions.

⁸²⁵ Analysys Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.18-19

⁸²⁶ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.11-12.

⁸²⁷ WIK Consult, *Cost Driver Sensitivity Analyses with Mobile Cost Models*, 22 December 2008.

2degrees

93. 2degrees⁸²⁸ note that they believe the EC recommendation to only be a “back of the envelope” calculation and that the recommendation does not describe how the assumption of 70% cost reduction is derived, making it difficult to use as a cross-check.
94. 2degrees also consider that without analysing the data used to calculate the implied on-net termination rates it is difficult to comment on the suitability of it as a cross-check. They do state that, in principle, the method of applying a retail minus approach to on-net prices is useful for establishing a ceiling MTAS price.
95. 2degrees conclude the point by stating that the lowest on-net rates are the best indicator of the upper limit of the underlying costs.

Vodafone

96. Vodafone⁸²⁹ submit that if the benchmarking is consistent with a cross-check that’s based on a different cost methodology then there are problems with the benchmarking.

Telecom

97. Telecom submit⁸³⁰ that the Commission has not taking into account the effect a two sided market analysis in determining its approach to regulating MTRs and that the cross-checks that should be employed are those that correctly review the properties of pricing both sides of the market.

Cross-Submissions on the Draft Report**2degrees**

98. 2degrees⁸³¹ cross-submitted that it is appropriate that the Commission take into account the approach of the EU and use the EC recommended LRIC price as a cross-check against Commission benchmarking.

Submissions on Revised Undertakings – October 2009

Ralph and Lanigan

99. Dr Ralph and Ms Lanigan’s (**Ralph and Lanigan**)⁸³² submission, on behalf of 2degrees, on revised undertakings stated that the implied on-net termination rates should be considered a maximum estimate of termination costs because it would be unusual for profit maximising firms to set prices that do not allow for the recovery of efficiently incurred costs.
100. Ralph and Lanigan submit that subscription revenues should not be attributed to call revenues because operators, when setting retail prices, have already chosen how to allocate costs between subscriptions, calls, texts and other services. Ralph and Lanigan submit that the prices they set for calls, and in particular the lowest price they set for calls, provide a maximal estimate of what costs can be attributed to call minutes.

⁸²⁸ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.56

⁸²⁹ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.48-49.

⁸³⁰ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, p.30.

⁸³¹ 2degrees, *Cross Submission – Commerce Commission Draft Report on MTAS*, 18 August 2009, p.52, para 11.9

⁸³² Dr Eric Ralph and Emma Lanigan, *Submission to the Commerce Commission on the Revised Undertakings*, p.3-4

101. Ralph and Lanigan continue by submitting that there is generally only one efficient cost in economics and that is the lowest cost of supply. In this case the lowest cost of supply is the lowest of the implied on-net termination rates.

2degrees

102. 2degrees⁸³³ state in their submission on revised undertakings that the Commission's cross checks are conservatively high and overstate the rate Vodafone and Telecom charge themselves, as implied by the on-net termination rates. 2degrees believe that setting prices at those levels would risk being in breach of the ECPR pricing principles, explicitly prohibited by under the Act.

2degrees letter to the Commission of 16 December 2009

103. On 16 December 2009 2degrees⁸³⁴ wrote to the Commission outlining the flaws it considered were contained in the Commission's letter of 3 December 2009. 2degrees stated it considers the cross-checks are inflated and at best set a ceiling well above cost and believe that the most accurate reflection of costs would be calculated by using the "best prices" for the "best customers" of the lowest cost provider.
104. 2degrees continue by stating that including subscription revenues generates a number that is the highest possible ceiling on cost. 2degrees also state that the 18% retail cost is likely to significantly underestimate the real avoided costs of providing wholesale MTAS services.

Price Point

Draft Report

105. In the Draft Report,⁸³⁵ considering whether to use some measure of the average benchmarked observations, such as the mean or median, or whether to move above or below the average, the Commission had regard to the risks associated with setting the MTAS price too high or too low.
106. The Commission considered recent determinations where benchmarking had been used as the IPP. In the case of the Sub-loop determination the Commission used the median, in the case of the MPF Service. For the Sub-loop Backhaul service the 75th percentile was used. The Commission noted that these price points were set following an assessment of the specific properties of each service and concluded that the selection of a price point must be undertaken on a case-by-case basis.
107. The Commission noted the two way nature of the MTAS market where MNOs are access seekers as well and access providers.
108. The Commission also acknowledged that it is relevant to consider the investment incentives of the two incumbents as well as the new entrant, who submitted that MTR regulation is a critical issue for its investment case.

⁸³³ 2degrees, *Submission on Revised Undertakings*, 16 October 2009, p.4, para 2.4.

⁸³⁴ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009.

⁸³⁵ 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, p.137-139

109. The Commission also noted that in the event that cost-based MTRs generate competition in the retail market through the reduction of barriers to entry and expansion for the new entrant, it is likely that the increased competitive pressure on all MNOs will lead to further innovation and investment.
110. Having assessed these issues the Commission's preliminary view was for voice services, to use the median of the benchmarked set rather than a price point above or below the median. For SMS, the Commission's preliminary view was that the appropriate benchmark was 0.95 cpSMS

Submissions on the Draft Report

Vodafone

111. Vodafone⁸³⁶ and Analysys Mason⁸³⁷ submitted that the 75th percentile, or “an upper range” is the appropriate price point for benchmarking because of the asymmetric risk of regulatory error and the uncertainty around the true cost of mobile termination in New Zealand.
112. Vodafone⁸³⁸ submit that “picking the middle out of the pack” doesn't explain a lot about the cost of the MTAS in New Zealand when the cost estimates of the benchmarks vary as much as they do.
113. With respect to SMS Vodafone submit⁸³⁹ that the likelihood of receiving an SMS in reply to one sent minimises the impact of setting an SMS MTR above cost because the cash-flow between parties will be negligible.

NERA

114. NERA⁸⁴⁰ submitted that the Commission's benchmark is likely to underestimate the efficient cost of the MTAS, noted that the median of the benchmark set would be out of step with the approach taken by most other regulators and also suggested that the Commission should use the 75th percentile.

Covec

115. Covec⁸⁴¹ submit that they consider it reasonable to use a price point of the 75th percentile of their benchmarked set due to comparability and asymmetric risk considerations.

2degrees

116. 2degrees⁸⁴² noted that there are a large number of countries⁸⁴³ that have MTRs below most in the benchmark set and they were unaware of any harm that had arisen in these countries as a result of low termination rates.

⁸³⁶ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.40, para, 118.

⁸³⁷ Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009 p.8.

⁸³⁸ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.42, para, 130.

⁸³⁹ *Ibid*, p.104

⁸⁴⁰ NERA, *Regulation of the MTAS: Review of the Commission's Draft Report*, 28 July 2009 p.9.

⁸⁴¹ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.2, para 8

⁸⁴² 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.28, Table 4.

⁸⁴³ 2degrees identify 15 countries that have MTRs of NZ4.4cpm and below.

117. 2degrees⁸⁴⁴ supported the view put forward by WIK Consult⁸⁴⁵ in their report of 9 June 2009 that cost models often contain an upward bias and that the Commission's benchmarking overstated the cost of the MTAS.
118. 2degrees also highlighted that in countries, such as the USA, where the stricter interpretation of LRIC is applied, cost estimates are dramatically lower. 2degrees submitted that if the Commission intended to proceed with an IPP based on benchmarking, that it critically reviewed the benchmark process to remove the upward bias. 2degrees suggested this could be accomplished by using the average of the lowest three benchmarks as the price point.
119. 2degrees submitted⁸⁴⁶ that it is not apparent why the Commission adopted the upper bound of the SMS benchmark set, rather than the median, mean or lower bound.
120. 2degrees also submitted that by taking the upper bound, the Commission was implicitly assuming that only Israel is an appropriate benchmark and Malaysia should be ignored, thus reducing the sample size to one.

Cross-Submissions on the Draft Report

Telecom

121. In their cross-submission Telecom⁸⁴⁷ endorsed the submission by Analysys Mason that the Commission should use a price point at or near the 75th percentile of the benchmarked set to avoid the asymmetric risk of regulatory error. Telecom noted this had been the approach of the Commission in the past.
122. Telecom also supported Vodafone's view that choosing the median of the cost based benchmark set, rather than using regulated prices, which Vodafone advocated, risks setting the MTR too low and potentially restricts operators ability to recover the costs of their investments. Telecom noted that this may cause a disincentive to investment.

2degrees

123. In their cross-submission, 2degrees⁸⁴⁸ state that Analysys Mason present no rationale for recommending that the Commission use the 75th percentile as the benchmark price point or why picking a "higher" benchmark is prudent or efficient.

Concept Economics

124. Concept⁸⁴⁹ note in their cross-submission that there are several reasons why cost models estimate different termination rates and conclude that the median value was likely to overstate the cost likely to be determined in New Zealand due to difference in cost allocation methodology of the benchmarks, with many containing fully allocated network costs. Concept noted that there is no apparent reason why the costs in New Zealand would be high by international standards.

⁸⁴⁴ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.20-22

⁸⁴⁵ WIK Consult, *Review of Submissions by Operators and Reports by Consultants relating to the NZ Commerce Commission's MTAS Investigation*, 9 June 2009, p.7-8.

⁸⁴⁶ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.19, para 3.10

⁸⁴⁷ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.17, para 65.

⁸⁴⁸ 2degrees, *Cross-Submission on Commerce Commission Draft Report on MTAS*, 18 August 2009, p.59-60, paras 14.8-14.9.

⁸⁴⁹ Concept Economics, *MTAS: Cross-Submission*, 18 August 2009, p.44-45.

Vodafone

125. Vodafone⁸⁵⁰ cross-submitted that in contrast to the dynamic efficiency reasons for choosing a benchmark above the median, it is not possible to make a principled economic argument for choosing a benchmark below the median.
126. In their cross-submission Vodafone also disagreed with the arguments made by WIK Consult, and endorsed by 2degrees in their submission, that other regulators who have set termination rates on the basis of cost models have erred and estimated the cost too high. Vodafone stated that in most cases, cost models had been developed through rigorous and transparent processes, involving independent experts. Vodafone were not aware of any evidence showing that the results were biased upwards.

MTAS Conference

127. At the MTAS Conference Mr Wesley-Smith from Telecom and Mr Feasey from Vodafone both suggested the use of a range of price points. Mr Wesley-Smith stated:⁸⁵¹

‘...I guess from my perspective the purpose of benchmarking is to try and get the right price, or at least directionally within a range where you think regulation will end up at.’

128. Mr Feasey stated:⁸⁵²

‘To summarise a lot of what’s written in a lot of places, I think generally what Regulators do is to say what is a TSLRIC price likely to look like, and they start with a range. There’s no single number that spits out, but they make a judgement within that.’

*Cost-path*Draft Report

129. In the Draft Report,⁸⁵³ the Commission assessed all cost-paths estimated by the cost models in the benchmark set. Of these models, the only model to estimate a cost-path beyond 2009 was the Swedish model.
130. The Commission considered cost-paths that weren’t estimated beyond 2009 would not adequately capture the technological efficiencies that would be realised in the years beyond 2009. The Commission also believed that cost-paths estimated for past time periods, for example the 2005-2009 time period estimated by the Israeli model, may not necessarily accurately reflect an efficient cost-path for an operator in the future.
131. For these reasons the cost-path used in the Draft Report was based on the Swedish model.
132. The Commission’s preliminary view was that reductions of 10% per annum should be applied to its benchmark of 7.2cpm for 2009.

⁸⁵⁰ Vodafone, *Cross-submission*, 18 August 2009, p.54-55, paras 191-192.

⁸⁵¹ MTAS Conference Transcript, 2 September 2009, page 122.

⁸⁵² *ibid*, page 135.

⁸⁵³ 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, p.124-125.

Submissions on the Draft Report

Covec

133. Covec⁸⁵⁴ in their submission, on behalf of Vodafone, estimated a cost-path of -4.7% per annum using cost-paths estimated by five of the cost models included in the benchmark set.

Vodafone

134. Vodafone⁸⁵⁵ submitted that when comparability and asymmetric risk is considered a cost-path estimated by Covec of less than -4.7% or less per annum is appropriate and note that the upper quartile of Covec's cost-path benchmarking returns a cost path of -1.5% per annum.

Analysys Mason

135. Analysys Mason⁸⁵⁶ recommend the Commission revise its recommendation regarding movements in costs over time because the data set used to estimate the cost-path in the Draft Report did not consider cost information from Israel, Malaysia and the Netherlands.

NERA

136. NERA⁸⁵⁷ submit that the Commission has not undertaken a "sanity check" on the cost-path in the Draft Report, which is larger than any productivity gains the Commission has used in other regulatory decisions. NERA also notes that the Swedish regulator has regulated rates at the upper bound of their estimates and the Commission uses an average of the Swedish cost-paths and queries New Zealand's comparability with Sweden.

2degrees

137. 2degrees⁸⁵⁸ submitted that the cost-path established by the Commission in the Draft Report did not properly account for the likely movement in costs over time. 2degrees considered that entry into the mobile market in New Zealand would generate significant cost reductions in the early years with this decreasing off over time, similar to that exhibited in the Swedish rates. 2degrees submitted that 15% reductions in the first two years, 10% reductions in the following two years and 5% reductions thereafter were more appropriate.
138. 2degrees⁸⁵⁹ also note that they expect costs in telecommunications to fall due to productivity growth, gains from scale, and gains from economies of scope due to innovation and state that all three of these factors will be intensified by 2degrees' market entry.

Concept Economics

139. In their assessment of the Consumer benefits from regulation Concept⁸⁶⁰ assume two cost paths, one that assumes a 60% reduction in the factual over 5 years with the significant reductions being front loaded, "when fully fledged competition begins" and a second that

⁸⁵⁴ Covec, *MTAS Regulation Quantitative Analysis*, 27 July 2009, p.14-15

⁸⁵⁵ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.47-48

⁸⁵⁶ Analysis Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.14-17

⁸⁵⁷ NERA, *Regulation of the MTAS: Review of the Commission's Draft Report*, 28 July 2009 p.9.

⁸⁵⁸ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, p.22

⁸⁵⁹ *ibid* p.55, para 2.7

⁸⁶⁰ Concept, *Assessment of the Consumer Benefits of Mobile Termination Regulation in New Zealand*, 28 July 2009, p.7-8.

assumes a 30% reduction over 4 years, once again with the significant reductions occurring early in the time frame.

Cross-Submissions on the Draft Report

2degrees

140. In their cross-submission, 2degrees⁸⁶¹ note that the Israeli cost-path that Analysys Mason submit should be included in the cost-path analysis is historic, and also submit that there is no basis for Analysys Mason's submission that the Commission "selectively omits" three countries from its cost-path analysis.

Concept Economics

141. Concept⁸⁶² cross-submit that the cost-path estimated by Covec is largely based on historical costs and will not therefore be reflective of future costs, which will fall considerably because increases in mobile data use will lead to the LRIC of voice termination being "trivial". This will occur as the traffic sensitive elements of mobile networks will become increasingly driven by mobile data, and as termination charges, which are based on fully distributed costs fall due to economies of scale and scope.

142. Concept conclude by stating that the Swedish cost-path is more informative of these costs than the Covec estimate cost-path.

Woosh, Kordia and CallPlus

143. Woosh, Kordia and CallPlus⁸⁶³ cross-submit that existing data, and trends must be used to calculate a cost-path and that historical benchmarks do not achieve the objective of benchmarking and create major distortions.

Should a regulatory glide-path be implemented?

Draft Report

144. In the Draft Report⁸⁶⁴ the Commission did not consider it appropriate to incorporate a glide-path into the benchmarks, as glide-paths do not reflect costs and therefore delay the potential benefits to end-users arising from increased competition in the downstream markets. The Commission's preliminary view was that the decision of whether a glide-path should be implemented was an implementation issue

Submissions on the Draft Report

Vodafone

145. Vodafone⁸⁶⁵ submitted that sudden decreases in termination rates can generate undesirable consequences for customers, especially low spend customers, disruption to business plans and long-term damage to investment incentives. Vodafone note that in light of these consequences, the Commission should include a glide-path to better meet the section 18 purpose of the Act which is consistent with international best practice.

⁸⁶¹ 2degrees, *Cross-Submission on Commerce Commission Draft Report on MTAS*, 18 August 2009, p.60, para 14.12.

⁸⁶² Concept, *MTAS: Cross Submission*, 18 August 2009, p.45-46.

⁸⁶³ Woosh/Kordia/CallPlus, *Cross Submissions to the Commerce Commission in Relation to MTAS Schedule 3 Draft Report*, 18 August 2009, p.7

⁸⁶⁴ 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, p.139-140.

⁸⁶⁵ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 28 July 2009, p.13, para 50.

146. Vodafone also submitted that the implementation of a glide-path is more than an implementation issue and submitted that if a glide-path was considered to be appropriate under regulation then the CBA would not account for such a glide-path which would overstate the benefits of regulation in this investigation.

Telecom

147. Telecom⁸⁶⁶ submitted that a glide-path is appropriate and should be implemented as they have been applied by most overseas countries. Telecom noted that a departure from a practice employed by other regulators risks regulatory intervention that does not accord with best practice and may well have unintended consequences on the competitive environment.
148. Telecom stated that should the Commission maintain its position that a glide-path is not appropriate, it must take into account the significant costs Telecom believe are associated with a rapid reduction in MTRs. Telecom submitted that these costs must be incorporated into the Commission's CBA.
149. Telecom noted that a sudden reduction in MTRs would create significant issues which may require changes in Telecom's business plan to adjust to the new market environment.
150. Telecom also referred to the statements on the Commission's advisors, Meyrick and Co, which was cited in *Unison Networks v Commerce Commission* [2007] NZSC 74 in support of a glide-path in the context of profit adjustments relative to the Commission's initial price path threshold for electricity lines businesses.

NERA

151. NERA⁸⁶⁷ submitted that the Commission needed to deal with glide-paths at this point in the regulatory process rather than deferring discussion until "implementation" because a glide-path affects the size of the net benefits of regulation. NERA stated that an immediate reduction in MTRs can be disruptive and harmful to investment incentives.
152. NERA also submitted that if the Commission persisted with excluding a glide-path in the factual price, the CBA must include any detriment caused by cutting prices too quickly and disrupting operators' investment plans.

Cross-Submissions on the Draft Report

Telecom

153. In their cross-submission Telecom⁸⁶⁸ supported the Vodafone submission and the material presented by Analysys Mason on glide-paths, stating that their submission supported Telecom's view that regulators generally take account of the impact a sudden reduction to MTRs by implementing a glide-path.
154. Telecom note that Vodafone submitted that a three year glide-path to a MTR of 5.8cpm would be appropriate. Telecom, however, cross-submitted that if more moderate changes are made to the MTR, as Telecom proposed in their July Undertakings, a two year glide-path, to January 2011, would suffice.

⁸⁶⁶ Telecom, *Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Submission on draft Report*, 28 July 2009, p.21.

⁸⁶⁷ NERA, *Regulation of the MTAS: Review of the Commission's Draft Report*, 28 July 2009 p.9-10.

⁸⁶⁸ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009 p.18

Concept Economics

155. Concept Economics⁸⁶⁹ cross-submission states that they believe a glide-path has little relevance to the New Zealand situation where the benefits of quickly aligning MTRs with cost are not simply pass-through price reductions but of removing entry barriers to enable competition. They also note that the MTR in Slovenia was halved in order to aid market entry and competition flourished.
156. Concept also note that investments will be undertaken by competitive firms as long as their expected return exceeds their costs.
157. Concept also note the timeframe within which the MTAS Schedule 3 investigation has evolved, noting that the investigation began in 2008 and if the MTAS is regulated, it will not occur until early 2011, thus giving Vodafone and Telecom more than 2 years to adjust to the possibility of regulation.
158. Concept conclude that if a glide-path is implemented it should only be to the FTM market, as to avoid distorting the mobile market or if a glide-path is implemented for the MTM market it should be set in an asymmetric manner in favour of 2degrees.
159. Woosh/Kordia/CallPlus⁸⁷⁰ cross-submit that they believe that a cost-path should be used to truncate the transition to lower MTRs and state that the gap between the publication of the MTAS report and the Ministers decision, and the completion of an STD allows almost a year for operators to plan for change.

MTAS Conference

160. The discussion on glide-paths at the MTAS Conference largely centred on issues that had been raised in earlier submissions.⁸⁷¹
161. Prof. Haucap⁸⁷² stated that the main reason for a glide-path was to aid the entry of competitors into the market. Prof. Haucap also made the statement that the aim of regulation is to stimulate competition, so a pertinent question to ask is if there were competition, would an incumbent be granted a glide-path in order to reach the price a competitor is able to offer. Prof. Haucap concluded that the philosophy of competition that lies behind most markets would be unlikely to allow such an outcome.
162. Professor Haucap⁸⁷³ made the statement that the aim of regulation is to stimulate competition, so a pertinent question to ask is if there were competition, would an incumbent be granted a glide-path in order to reach the price a competitor is able to offer. Prof. Haucap concluded that the philosophy of competition that lies behind most markets would be unlikely to allow such an outcome.
163. Mr Feasey,⁸⁷⁴ from Vodafone, stated that he didn't think the main reason for a glide-path was to allow asymmetric rates to new entrants as Professor Haucap stated. Mr Feasey

⁸⁶⁹ Concept, *MTAS: Cross Submission*, 18 August 2009, p.47-48.

⁸⁷⁰ Woosh/Kordia/CallPlus, *Cross Submissions to the Commerce Commission in Relation to MTAS Schedule 3 Draft Report*, 18 August 2009, p.10-11

⁸⁷¹ These are summarised earlier in this section.

⁸⁷² MTAS Conference transcript, p.151-152.

⁸⁷³ *ibid*, p.152.

⁸⁷⁴ *Ibid*, p.153-154.

believes the European Commission has adopted the view that any asymmetric rates should narrow more quickly than the time taken for the industry as a whole to adjust to the recommended LRIC modelled price.

164. Mr Newman,⁸⁷⁵ from TUANZ, stated that one could argue that operators have been on a glide-path already and that TUANZ' position is that during this period user have been paying more for mobile services and operators have been earning more and thus the balance of doubt should fall on the side of consumers. Mr Newman concluded by stating that if there is a shock from an immediate reduction to cost, which TUANZ does not place much weight on, they are prepared to live with the consequences.

165. Mr McCabe,⁸⁷⁶ from 2degrees responded to Mr Feasey's comments by reciting comments by the EC on glide-paths. Mr McCabe noted that the EC stated:

'this (the implementation of a glide-path) results in substantial transfers in an indirect subsidy from fixed operators and their customers to mobile networks and services and this may in turn be contributed to inefficiently low usage of fixed networks in some member states and could prove to be a barrier to important innovations and investments in the fixed sector such as fibre roll-out and delivery of next generation networks and bundled convergent services.'

166. Mr McCabe noted that there is a precedent set where fixed (PSTN) termination rates fell by over 60% overnight and no harm has been evident. Mr McCabe also noted that reductions of 50% have occurred in some European jurisdictions and with no discernable harm occurring.

167. Mr McCabe concluded by stating that applying a glide-path may reduce the shock to investors in Vodafone and Telecom, who have been made aware of the risk of regulation in SEC filings, but it is unfair to prolong the burden borne by 2degrees investors which is caused by above cost MTRs. Mr McCabe noted that he though the shock to consumers of an immediate reduction to cost would be in lower prices, which he didn't think would be a problem.

168. Mr Abbot⁸⁷⁷ from TelstraClear stated that he considered that above cost termination rates have a detrimental effect on the downstream markets so applying a glide-path will impede competition. Mr Abbot also stated that he has some sympathy of the need for a glide-path but believes that a decision on glide-paths needs to be considered in the context that MTR regulation has been considered since 2004 and believed that there is some inevitability about it.

Submissions on Revised Undertakings – October 2009

Vodafone

169. Vodafone⁸⁷⁸ submit on the revised undertakings by stating that Telecom's undertaking contains a glide-path that is too steep and defeats the purpose of a glide-path, which is to mitigate the negative effects of large decreases in termination rates.

Drop the Rate Mate (DtRM)

⁸⁷⁵ Ibid, p.154-155.

⁸⁷⁶ Ibid, p.155-156.

⁸⁷⁷ Ibid, p.157.

⁸⁷⁸ Vodafone, *Vodafone New Zealand Limited submission to the Commerce Commission*, 16 October 2009, p.8, para

170. In their submission on revised undertakings, DtRM⁸⁷⁹ state that glide-paths delay or reduce the benefits of regulation, prolong harm to consumers and jeopardise competition. DtRM state that there is no evidence that glide-paths are justified and that no harm was displayed when Telecom's Fixed PSTN interconnection rate was reduced by 60%.

Professor Haucap

171. Professor Haucap's⁸⁸⁰ submission, on behalf of 2degrees, on revised undertakings stated that the "entire logic" behind glide-paths is to protect and encourage entry into a market by allowing them higher, asymmetric rates. Dr Haucap notes that asymmetric rates are associated with inefficiencies and should, if used, only be temporary measures and in order to phase them out, some European regulators are using glide-paths.

2degrees

172. In their submission on revised undertakings, 2degrees⁸⁸¹ stated:

- glide-paths delay the benefits of regulation and reduce benefits to consumers;
- investments will be undertaken, at least by competitive firms as long as their expected return exceeds their costs;
- the purpose of regulation is to replicate competition. The incumbents would not have a glide-path to respond to competition;
- the delay in implementation of regulation gives operators plenty of time to adjust and referenced the Commission's FTM Final Report;
- that both Vodafone's and Telecom's SEC filings have warned investors of the potential for regulation;
- there was no detriment when there were significant reductions in fixed PSTN termination in New Zealand and mobile termination in Slovenia; and
- the use of glide paths internationally is generally for new entrants.

Kordia

173. In Kordia's⁸⁸² submission on revised undertakings, they express support for the Commission's focus on getting New Zealand's MTRs quickly into line with international practice, which they believe supports a short glide-path.

2G/3G

Draft Report

174. In the Draft Report⁸⁸³ the Commission noted that the significant costs of building a network are already incurred when an operator makes the decision to migrate from a 2G network to a 3G network.

⁸⁷⁹ Drop the Rate Mate, *Submissions on revised undertakings on mobile termination access service*, 16 October 2009, p.3, para 11.

⁸⁸⁰ Professor Justus Haucap, *A Short Note on the Philosophy and Economic Rationale Underlying "Glide-paths" for the Regulation of Mobile Termination Rates*, August 2009.

⁸⁸¹ 2degrees, *Submissions on Revised Undertakings*, 16 October 2009, p.8

⁸⁸² Kordia, *Submission on Revised MTAS Undertakings*, 16 October 2009, p.1

175. From this the Commission noted that voice and SMS services are not impacted by the a migration from a 2G to 3G network and migration is a commercial decision made on the basis of a cost benefit analysis of the additional services a 3G network allows. The Commission concluded that any extra cost of running two networks concurrently should not be borne by the voice and SMS services.

Submissions on the Draft Report

Analysys Mason

176. In their submission Analysys Mason⁸⁸⁴ did not agree with the Commission's position that no allowance should be made for the costs of transitioning from 2G to 3G, as the Commission should be ready to consider the costs incurred by an operator that transitions efficiently from 2G to 3G.
177. In their submission Analysys Mason stated that it is appropriate to benchmark against 2G only cost models. Analysys Mason note that this allows for the recovery of the actual costs incurred over time by an efficient operator that moves from 2G to 3G.
178. Analysys Mason noted in their submission that it would be incorrect to benchmark against 3G only models in the future without proper consideration of the under-recovery of costs that would occur when switching instantaneously from 2G only to 3G only modelling.

2degrees

179. 2degrees⁸⁸⁵ cross-submit that they believe that Vodafone and Telecom have already more than recovered their investments so an allowance for the costs of transitioning from 2G to 3G technology should not be made.

⁸⁸³ 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, p.141-142.

⁸⁸⁴ Analysys Mason, *Assessment of the position of the Commerce Commission of New Zealand in determining the MTAS prices*, 27 July 2009m p.20-23

⁸⁸⁵ 2degrees, *Cross-Submission on Commerce Commission Draft Report on MTAS*, 18 August 2009, p.60-61.

APPENDIX 5: SUBMISSIONS ON ASSESSMENT OF WHETHER THERE ARE GROUNDS TO REGULATE AND WHETHER THE UNDERTAKINGS SHOULD BE RECOMMENDED FOR ACCEPTANCE

Potential Impact of Regulation of Fixed-to-Mobile Termination Rates

Potential Benefits of Regulation of Fixed-to-Mobile Termination Rates

Draft Report

1. In the Draft Report, the Commission considered the extent to which cost-based regulation of MTRs would promote competition in the downstream retail market in which fixed-to-mobile calls are supplied to end-users. In respect of FTM calls, this involved consideration of whether such regulation would be likely to increase competition between existing and potential suppliers of calls that originate on fixed networks and terminate on mobile networks.
2. In relation to the potential benefits of MTR regulation in the downstream fixed-line market, the Commission noted the following:
 - to the extent that downstream competition is enhanced as a result of regulation in the upstream wholesale termination market, any reduction in MTRs is likely to be passed through into the hands of end-users. Such “pass-through” is likely to occur in a number of different ways, including lower retail prices for FTM calls and other services that are typically supplied in conjunction with FTM calls, such as toll calls. In addition, end-users may benefit in other ways, such as through improvements in service quality;⁸⁸⁶
 - the level of pass-through will depend on how competitive the relevant market is. In a perfectly competitive market, any reduction in cost would be fully passed through into retail prices, while a lower level of pass-through would be expected in less competitive markets;⁸⁸⁷
 - over the period between 1997 and 2007,⁸⁸⁸ the reduction in the average retail FTM price represented 75% of the reduction in the average MTR;⁸⁸⁹
 - the level of pass-through appeared to have increased over the period,⁸⁹⁰ and this may have reflected a number of developments that had increased competition in the downstream market over the period. These developments included the introduction of carrier pre-selection (which allows customers to more easily switch suppliers) and the availability of regulated resale access (allowing retail competitors to offer bundled services, including for example an access line rental);

⁸⁸⁶ Commerce Commission draft MTAS report, paragraph 631.

⁸⁸⁷ *ibid*, paragraphs 676 to 679.

⁸⁸⁸ The Commission focused on the period prior to the introduction of the MTR Deeds. Under the Deeds, Vodafone and Telecom committed to 100% pass-through of MTR reductions into retail FTM prices.

⁸⁸⁹ Commerce Commission draft MTAS report, paragraph 664.

⁸⁹⁰ *ibid*, Figure 16.

- the introduction of cost-based MTRs is likely to increase competition in the downstream market in which FTM calls are supplied, resulting in increasing levels of cost pass-through in that market.⁸⁹¹
3. In the draft model used to estimate the potential benefits from cost-based MTRs, the Commission assumed that 88%⁸⁹² of the reduction in MTRs under the counter-factual would be passed through into retail FTM prices. Under the factual, the Commission allowed the rate of pass-through to increase over time, from 75% in 2008 to 100% by 2015, to reflect the pro-competitive effect of cost-based MTRs.
 4. The reductions in MTRs and the above pass-through rates resulted in two sets of retail FTM prices, one for the counter-factual scenario where MTRs declined as per the initial undertakings, and one for the factual where MTRs were subject to cost-based regulation. The Commission applied a demand elasticity for FTM calls of -0.6, to derive a series of FTM volumes for each of the two scenarios. The Commission estimated that cost-based regulation of the MTAS would increase consumer surplus in respect of FTM calls by between \$280 million and \$283 million over five years, and total surplus by between \$89 million and \$114 million over the same period.
 5. In addition, the Commission noted that cost-based MTRs were likely to produce important dynamic benefits for consumers over time. These benefits would result from increased competition leading to greater service innovation, new pricing plans (including flat-rate calling plans that encompass FTM calling), and improved incentives for more efficient investment in fixed-line infrastructure (including potentially for fibre-based roll-out).

Submissions on the Draft Report

TelstraClear

6. According to TelstraClear, reductions in MTRs get passed through to end-users, and arguments to the contrary ignore commercial reality and market evidence. TelstraClear submitted that:⁸⁹³

‘With the availability of regulated wholesale access services, the market focus has now shifted to delivering bundles of services to customers, and most TelstraClear customers now purchase bundles of services that can include voice access, internet access, toll-calling/FTM and television services. This is delivered using either TelstraClear’s own network or via wholesale access.’
7. As a result, TelstraClear argued that any analysis of the impact of MTR regulation should consider the bundled supply of retail services, rather than focusing only on FTM prices which would substantially understate the level of competitive benefits and pass-through achieved.
8. However, even on a stand-alone basis, TelstraClear submitted that retail FTM prices have continued to drop significantly.

⁸⁹¹ *ibid*, paragraph 685.

⁸⁹² The 88% took account of the commitment in Vodafone’s undertaking to pass 100% of the MTR reduction through into retail prices. In the absence of a similar commitment in Telecom’s undertaking, the Commission assumed a pass-through rate of 75% in relation to Telecom’s MTRs.

⁸⁹³ TelstraClear submission, 28 July 2009, paragraph 18.

9. TelstraClear supported the Commission's draft view that above-cost MTRs will dampen competition in the supply of retail FTM calls, as fixed operators will be limited in their ability to compete with integrated operators.⁸⁹⁴

'Wholesale mobile termination rates above cost reduce the ability of competing carriers to deliver compelling packages in competition with those mobile carriers who are able to cross-subsidize their own bundles with revenue from above-cost mobile termination, thereby denying New Zealand end-users with choice.'

10. At the Commission's conference, TelstraClear again submitted that it has to compete with retail FTM prices that are below the wholesale mobile termination price, making it difficult to compete against integrated operators in the market. TelstraClear also noted that retail fixed-line prices dropped when Clear first entered the New Zealand market, and that similar benefits have been passed through to end-users as services have been supplied in bundles.⁸⁹⁵

CallPlus

11. CallPlus also referred to the difficulties that it faces in competing against FTM offers that are below CallPlus' costs.⁸⁹⁶ CallPlus submitted that it competes on the basis of offering customers better deals on bundles of services rather than individual services, and that it is imperative that reductions in MTRs are passed through to customers in these bundled offerings.

Telecom

12. At the Commission's conference, Telecom agreed with views expressed by TelstraClear, Kordia, and CallPlus that competition for fixed-line services occurs across bundles of services, and that Vodafone's alleged "rort" whereby fixed-line operators have retained previous reductions in MTRs has not been evident in Telecom's margins.⁸⁹⁷
13. In its submission on the draft, Telecom commented on the Commission's assumed FTM demand elasticity of -0.60. According to Telecom, the Commission's own numbers imply that the FTM demand elasticity may well be below -0.60, and Telecom submitted that a figure of -0.10 would better fit the data. Telecom referred to its previous submissions on FTM demand elasticities.⁸⁹⁸

TUANZ

14. TUANZ submitted that competition at the retail level will ensure that reductions in MTRs are passed through.⁸⁹⁹
15. TUANZ noted the Commission's observations in the Draft Report that the retail FTM prices offered by both Telecom and Vodafone to business customers are close to or below

⁸⁹⁴ *ibid*, paragraph (vi).

⁸⁹⁵ Conference transcript, pages 185 and 186.

⁸⁹⁶ *ibid*, page 186.

⁸⁹⁷ *ibid*, page 187.

⁸⁹⁸ Telecom submission, 28 July 2009, paragraph 110.

⁸⁹⁹ TUANZ submission, 28 July 2009, page 4.

the wholesale MTR. TUANZ submitted that such pricing is widespread, and places fixed-only operators at a major disadvantage in the market.⁹⁰⁰

Vodafone

16. Vodafone submitted that the Commission over-estimated the extent to which lower MTRs would promote competition and FTM pass-through. Vodafone argued that the Commission's proposed designation of the MTAS offers no guarantee that MTR reductions would be passed on to end-users.⁹⁰¹
17. According to Vodafone, the Commission's analysis of historic levels of pass-through of MTR reductions into retail FTM prices is incorrect. While the Commission concluded that 78% of the MTR reduction over 1997 to 2008 was passed through into lower retail FTM prices, Vodafone argued that this has been skewed as a result of the pass-through commitment contained in the Vodafone MTR Deed. In addition, Vodafone submitted that inadequate consideration had been given to how changes in other costs (such as fixed origination, transport, and retail costs) have contributed to lower retail prices.⁹⁰² Vodafone referred to Covec's analysis of historic levels of pass-through, concluding that a pass-through level of around 41% is a more reasonable baseline estimate of what would occur in the absence of formal commitments by carriers (such as those contained in the prevailing Deeds).
18. Vodafone also disagreed with the Commission's view that lower MTRs would increase competition (and hence pass-through) in the downstream market.⁹⁰³ According to Vodafone, it is unlikely that cost-based regulation of the MTAS would markedly increase competition in the market for FTM calls. Vodafone submitted that there are other substantial barriers to entry and expansion in this market, making it highly unlikely that MTR regulation will facilitate new entry or improve competitive conditions, compared to what has been historically observed.
19. Vodafone referred to evidence from other jurisdictions, such as the EC, Ofcom, and Australia, which indicated that pass-through has been well below 100% under regulation. For example, the EC estimated pass-through at 20%, while Ofcom had observed levels of 64%. Evidence from Australia suggests a pass-through level of around 25%. According to Vodafone:⁹⁰⁴

'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.'
20. In its cross-submission, Vodafone agreed with TelstraClear that retail FTM services are supplied as part of a bundle with other services such as national and international toll services, and increasingly broadband services. Vodafone submitted that as a result of this broader market definition, further reductions in MTRs are likely to have a trivial impact on

⁹⁰⁰ *ibid*, page 3.

⁹⁰¹ Vodafone submission, 28 July 2009, paragraph 167.

⁹⁰² *ibid*, paragraph 168.

⁹⁰³ *ibid*, paragraph 170.

⁹⁰⁴ *ibid*, paragraph 191.

overall input costs faced by fixed operators in New Zealand. As a result, competition is unlikely to be promoted as a result of MTR regulation.⁹⁰⁵

21. Vodafone argued that smaller suppliers of FTM calls had passed through only 30% of MTR reductions over 2006 to 2008.⁹⁰⁶ According to Vodafone, smaller fixed-line operators are not using lower MTRs to compete with Telecom, as evidenced by the average FTM price charged by the smaller operators in 2008 being above Telecom's average FTM price.⁹⁰⁷ Vodafone suggested that reductions in MTRs have simply translated into increased margins earned by fixed operators on the supply of FTM calls, and that such margin expansion is likely to continue in the event of further regulated reductions in MTRs.
22. Vodafone again referred to the lack of FTM pass-through observed in Australia, with FTM prices actually increasing in the 2008-09 financial year.

Covec

23. In its submission on behalf of Vodafone, Covec argued that the Commission has over-estimated the likely level of FTM pass-through under the factual scenario where MTRs are regulated. Covec submitted that the Commission's figure of 75% was derived from changes in prices over 1997 to 2007, assuming that all changes in retail FTM prices were attributable to changes in the wholesale MTRs. However, Covec argued that other factors have also been placing downward pressure on retail FTM prices over the period.⁹⁰⁸
24. In order to control for these other factors, Covec undertook some regression analysis which included a parameter (α) that is supposed to capture other pro-competitive changes that have occurred in the FTM market. Covec considered a number of different model specifications: the first assumed that the level of pass-through is constant over time ("Model 2a"); the second assumed that the level of pass-through changes over time ("Model 2b"); and the third assumes that the level of pass-through changes as the MTR changes ("Model 2c").
25. Covec estimated an FTM pass-through rate of between 24% and 57%,⁹⁰⁹ and submitted that a reasonable estimate of the level of FTM pass-through that can be attributed to changes in the MTRs, based on an average of these two estimates, is 41%. Covec concluded that:⁹¹⁰

'While our estimate is less than the often-quoted benchmark of 50% pass-through for a monopoly, we note that the 50% figure is derived under the assumption of linear demand, and monopoly pass-through can be higher or lower than 50% depending on the curvature of demand. We also note that our estimate is greater than what has been observed in Australia in recent years.'

26. Covec also submitted that while MTRs had declined between 1997 and 2007, the margin between the retail FTM price and the MTR had increased. Covec argued that this is

⁹⁰⁵ Vodafone cross-submission, 18 August 2009, paragraph 240.

⁹⁰⁶ *ibid*, paragraph 243.

⁹⁰⁷ *ibid*, paragraph 244.

⁹⁰⁸ Covec submission, 27 July 2009, paragraph 97.

⁹⁰⁹ *ibid*, paragraph 117. The lower bound estimate is obtained where Covec allows for exogenous changes in the FTM price (through the term α), and the upper bound estimate is obtained where Covec excludes exogenous changes ($\alpha=0$). According to Covec (paragraph 117), the former may be an underestimate, and the latter an overestimate, of the level of FTM pass-through.

⁹¹⁰ *ibid*, paragraph 118.

inconsistent with the Commission's view that reductions in MTRs lead to increased competition in retail FTM market, as margins would be lower as competition intensified.

27. Covec argued that the Commission's application of a given pass-through level in a particular year – where the level of pass-through for that year was used, as well as incremental pass-through from previous years – to derive the change in retail FTM prices was unclear. Covec noted that the actual level of pass-through that resulted is higher than that implied by the pass-through parameter for a given year.⁹¹¹

Dr Haucap

28. In his submission, Dr Haucap commented that FTM pass-through clearly depends on the level of competition in the retail market for calls from fixed telecommunications networks.⁹¹² Dr Haucap submitted that competition in this market is likely to have increased over the period between 1997 and 2007, due to a number of regulatory measures such as the introduction of sector-specific regulation in 2001, and the consequent availability of wholesale line rental and, from 2007, of unbundled local loop access. As a result, the level of FTM pass-through is likely to have increased over the period.
29. In commenting on Covec's proposed FTM pass-through rate of 41%, Dr Haucap argued that Covec is suggesting that fixed-line competition is not working effectively. According to Dr Haucap, while this could possibly require further regulatory action in the fixed-line market, it should not be used as an argument to prevent competition in the mobile market.⁹¹³
30. Dr Haucap also noted that while Covec estimate a fixed-line pass-through rate of between 24% and 57%, Covec also claimed a waterbed effect of 75% is reasonable. According to Dr Haucap:⁹¹⁴

'This appears to suggest that the competition between two jointly dominant mobile operators is stronger than competition between fixed-line telephony providers in a market with low barriers to entry and numerous providers. Since it is well accepted in economics that pass-through rates increase with the degree of competition, the question remains why competition in fixed-line telephony would be so weak.'

Concept

31. In its cross-submission, Concept noted that fixed-line operators typically compete for a bundle of services, rather than for FTM calls alone. Concept submitted that reductions in MTRs are therefore likely to be passed through to consumers on services other than FTM calls provided in the bundle. According to Concept, Covec's finding of a low level of FTM pass-through, combined with the fact that there are a number of fixed-line operators competing for customers, suggests that other services in the fixed service bundle may have higher elasticities, and that the Commission may have under-estimated the consumer benefits of lower MTRs:⁹¹⁵

⁹¹¹ *ibid*, paragraphs 91 and 92.

⁹¹² Haucap submission, paragraph 32.

⁹¹³ *ibid*, paragraph 34.

⁹¹⁴ *ibid*, paragraph 35.

⁹¹⁵ Concept cross-submission, 18 August 2009, page 50.

‘This is because a firm supplying a bundle of services will pass cost reductions to customers on those services for which the elasticity is highest. If the rate of pass-through is not large for a given component, then that suggests it may have a lower elasticity than other services in the bundle. This, in turn, would suggest that the Commission’s modelling approach may understate surplus, because for a given level of total pass-through, reducing the prices of the most price-sensitive components of the bundle will result in higher surplus gains than assuming that all of the pass-through occurs through the FTM price.’

32. Concept also supported the view of Dr Haucap, that the alternative parameters suggested by Covec perversely imply that the mobile duopoly in New Zealand is more competitive than the multi-player fixed services market.

Potential Detriments of Regulation of Fixed-to-Mobile Termination Rates

Draft Report

33. In the Draft Report, the Commission noted that the value of a customer to a mobile network operator will depend on the level of revenues that the operator can earn as a result of having that end-user as a subscriber on its network. These revenues include retail revenues from services supplied directly to that subscriber, such as from handsets, subscription (fixed monthly fees) and outgoing calls, as well as wholesale revenues that are earned in respect of incoming calls made to that subscriber from other networks (termination revenues).
34. In other words, revenues are earned from both subscription/origination services (including handset sales) and from termination services. A reduction in termination revenues (in particular, those earned on calls from fixed-line subscribers) may therefore reduce the customer value, leading to a reduction in competition between networks to gain that customer as a subscriber. This may result in a relative increase in subscription/origination prices.⁹¹⁶
35. The Commission’s Draft Report allowed for the possibility of a “waterbed effect”, according to which a reduction in MTR may result in an increase in subscription prices. In the draft, the Commission stated that the strength of the waterbed effect is likely to be related to the level of competition in the downstream retail mobile services market, with a stronger effect likely where the mobile sector is effectively competitive (and thus operating under a zero economic profit constraint). In addition, the Commission noted the strength of any relationship between wholesale MTRs and retail prices is likely to be weaker at high levels of penetration.
36. In the case of the New Zealand mobile market, the Commission found that competition was unlikely to be sufficient to ensure that termination profits are competed away and transferred to mobile subscribers, and that as a result, any waterbed effect is likely to be less than complete.
37. The Commission observed that average retail prices in New Zealand had continued to decline over the period between 2006 and 2008 (including average retail MTM revenue per

⁹¹⁶ In its recent decision, the UKCC accepted Vodafone’s representation of competition between mobile operators for subscribers based on the ‘customer lifetime value’ or ‘CLV’ (paragraph 4.46). In commenting on the implications of eliminating termination revenues (under a bill-and-keep type arrangement), the UKCC noted a number of potential detrimental consequences, including an unwillingness to supply pre-pay customers (who tend to be net call recipients), a move to receiving party pays retail pricing, and/or an increase in the price for other services including subscription fees. UKCC, 16 January 2009, paragraph 14.79.

minute, and average subscription and handset revenues per subscriber), a period over which there had been relatively significant reductions in wholesale MTRs. The Commission concluded that any waterbed effect in New Zealand had been relatively weak.

38. In the Draft Report, the Commission therefore considered a range of possible rebalancing of retail prices. This was achieved by allowing retail mobile prices (as proxied by retail ARPU) to increase by an amount sufficient to recover some proportion of the reduction in wholesale FTM termination revenues. The proportion of lost termination revenues recovered in this way was assumed to be between 0% and 50%, with retail mobile subscription prices being up to 2% higher under regulation, compared to the counter-factual.
39. Given a subscription demand elasticity, the (relative) increase in retail subscription prices under the factual of regulation resulted in a reduction in the level of mobile subscription. This produced a loss in consumer and producer surplus for mobile subscription, and also had a flow-on effect for fixed subscribers and the remaining mobile subscribers in that there were now fewer mobile subscribers available to be called.
40. Under a 0% waterbed effect, there was no loss in consumer surplus. Under a 50% waterbed effect, the resulting reduction in consumer surplus over the five years to 2015 was estimated to have a net present value (NPV) of between -\$161 million and -\$183 million, while the reduction in total surplus was estimated to have an NPV lying between -\$30 million and -\$52 million over the five years.⁹¹⁷

Submissions on the Draft Report

Vodafone

41. In its submission on the Draft Report, Vodafone argued that the reductions in MTRs proposed by the Commission in the draft MTAS report would lead to significant revenue reductions for mobile operators, and that it is not credible to assume that mobile operators would not respond in some way.⁹¹⁸ Vodafone claimed that the reductions in MTRs proposed by the Commission would put at risk Vodafone revenues of more than \$300 million over five years.⁹¹⁹ In a later submission, Vodafone estimated that the MTR reductions contained in its revised undertaking will reduce its revenues by more than \$450 million over five years, compared to existing rates.⁹²⁰
42. Vodafone noted that mobile operators might respond to such revenue reductions in a number of ways,⁹²¹ including increasing retail mobile prices (or reducing such prices more slowly than otherwise); introducing more stringent top-up conditions for prepay customers; shortening prepay credit expiry timeframes; reducing handset subsidies or introducing SIM-locking; reducing investment levels; and delaying the introduction of innovative new services.

⁹¹⁷ Commerce Commission draft MTAS report, paragraph 864.

⁹¹⁸ Vodafone submission, 28 July 2009, paragraph 197.

⁹¹⁹ *ibid*, paragraph 46.

⁹²⁰ Vodafone submission, 16 October 2009, paragraph 7.

⁹²¹ Vodafone submission, 28 July 2009, paragraph 198.

43. According to Vodafone, the Commission's assumption of a relatively small waterbed effect is in contrast to the evidence in the academic literature:⁹²²

'That a waterbed effect will exist for FTM and MTM termination is established by Armstrong and Wright (2009). 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) and Andersson and Hansen (2009). 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.'

44. Vodafone submitted that as shown by Covec, the Commission's calculation of the increase in mobile subscription prices does not allow for the elasticity of mobile subscription demand.⁹²³ As a result, the actual increase in mobile subscription prices derived by the Commission is insufficient. For example, in 2011, the actual level of revenue recovered in the draft model is around 36%, which is lower than the 50% assumed by the Commission.

45. Vodafone also submitted that at high levels of penetration, competition between mobile networks will be more intense, as competitors can only gain subscribers by attracting them from their rivals. This results in a higher waterbed effect. As a result, Vodafone claimed that recent increases in mobile penetration in New Zealand (from 91% in 2006, to 106% in 2009) are likely to increase rather than reduce the strength of the waterbed effect.

46. Vodafone commented on the Commission's observations that retail mobile prices had continued to decline at the same time that MTRs had been reduced, and the Commission's conclusions that this suggested a relatively small waterbed effect in recent years in New Zealand. According to Vodafone, inferences about the waterbed effect based on trends in retail prices will ignore many other ways in which consumers may end up worse off as a result of lower MTRs.

47. Vodafone also submitted that MTR reductions in the past have been gradual compared to the reduction proposed by the Commission in the draft MTAS report.⁹²⁴

'With a gradual decrease in the MTR, operators have time to adjust and the detriments created by the waterbed effect will be less severe.'

48. Vodafone argued that the Commission's casual observation relating to retail prices is unlikely to be informative as to the extent to which MTRs have affected retail mobile prices. Vodafone noted that academic research has used sophisticated models and richer datasets, and that even with such tools, it is difficult to isolate the waterbed effect.⁹²⁵

49. Vodafone submitted that pre-pay customers are likely to be particularly affected by significant reductions in MTRs. According to Vodafone, such customers (which make up approximately 71.5% of Vodafone's customer base) typically generate a relatively large proportion of their revenue for a mobile operator through the termination revenues received on incoming calls. Reductions in MTRs will therefore make these customers unprofitable

⁹²² *ibid*, paragraph 202.

⁹²³ *ibid*, paragraph 206.

⁹²⁴ *ibid*, paragraph 217.

⁹²⁵ *ibid*, paragraph 219.

at existing retail rates, resulting in less intense competition for these customers, with potential consequences including higher retail prices and/or faster credit expiry times.⁹²⁶

50. Vodafone therefore submitted that if the Commission is to introduce large-scale reductions in MTRs through regulation, such reductions should be introduced gradually using a glide-path.⁹²⁷

‘This will give mobile operators more opportunity to manage the speed of changes in the retail mobile market and ensure that customers will adjust to these changes in a less detrimental way.’

Covec

51. In its submission on behalf of Vodafone, Covec argued that the Commission’s observations on the size of the waterbed effect over the period 2006-2008 faces a number of difficulties, including the short time period and the need to account for other developments in the New Zealand mobile market, including reaching saturation and the transition to 3G. According to Covec, these developments are likely to explain retail price movements, regardless of the level of the MTR.⁹²⁸

52. Covec submitted that the general approach taken by the Commission to modelling the waterbed effect is reasonable for the purposes of assessing the potential detriments of regulating MTRs.⁹²⁹ However, Covec argued that the Commission’s calculation of the waterbed effect ignores the impact of the mobile subscription demand elasticity when deriving the required increase in retail ARPU. As a result, the level of the waterbed effect is underestimated.

53. Covec demonstrated the impact of this as follows. Based on the linear demand version of the Commission’s draft model, the reduction in wholesale termination revenue can be derived as:

‘Lost termination revenue = Counter-factual MTR x Counter-factual FTM Quantity - Factual MTR x Factual FTM Quantity’

54. Covec noted that for 2011, regulation results in a reduction in FTM termination revenues of \$73.94 million, and that the Commission had assumed that 50% of this loss would be recovered via the waterbed effect. However, the Commission had simply divided the amount to be recovered by the number of mobile subscribers in the counter-factual. According to Covec,⁹³⁰

‘This ignores the fact that mobile subscription will reduce in the factual when the mobile subscription price rises, and therefore a greater increase in ARPU is required to achieve the assumed amount of revenue recovery. The actual change in retail mobile revenues is:

Change in mobile revenue = Factual ARPU x Factual Mobile Subscribers – Counter-factual ARPU x Counter-factual Mobile Subscribers’

⁹²⁶ *ibid*, paragraphs 270-272.

⁹²⁷ *ibid*, paragraph 274.

⁹²⁸ Covec submission, paragraph 140.

⁹²⁹ Covec submission, paragraph 143.

⁹³⁰ Covec submission, paragraph 148.

55. Covec estimated that the actual level of revenue recovery in the Commission's Draft Report was 36%, compared to the assumed level of 50%.⁹³¹
56. In addition to correcting the way in which the model calculates any given waterbed effect, Covec submitted that the strength of the waterbed effect is likely to be greater than the Commission's range of 0% to 50%. Covec argued that the empirical work undertaken by Genakos and Valletti, and Andersson and Hansen, provide evidence of a relatively strong waterbed effect, while CEG's report for Ofcom also found evidence of a link between MTRs and the level of mobile penetration.
57. Covec concluded that⁹³²
- ‘This and the fact that the Commission has ignored the MTM waterbed effect lead us to believe that the Commission's assumption of a 50% waterbed effect is too small. Given the results presented in the literature, our view is that a 75% waterbed effect is a more reasonable assumption.’
58. Covec also commented on several other parameters used in the Commission's draft assessment of the potential impact of regulation. In the draft, the Commission used data from Telecom's 2004 annual report to derive an estimate of the average retail price and volume of MTM calls, and Covec argued that updated data from both Telecom and Vodafone should be used. In order to avoid using restricted information, Covec relied on Telecom's 2008 financial results, and noted that the average mobile voice price had declined to 35cpm, compared to the 43cpm used in the draft.
59. In addition, Covec noted that the number of Telecom mobile subscribers in 2008 was 2,077,000 subscribers, compared to 1,352,000 used in the draft.
60. Finally, Covec noted that the Commission used an annual ARPU of \$450, which exceeded Telecom's annual ARPU of \$350.

Telecom

61. According to Telecom, the Commission's draft analyses the MTAS as a single-sided market, and has not taken into account the interdependence between the MTAS and retail mobile services such as subscription and origination services.⁹³³
62. Telecom also submitted that the Commission's modelling is likely to understate the waterbed effect, as the Commission assumes that mobile operators will ignore any mobile subscription elasticity effect when re-setting mobile prices as a result of lower MTRs. In addition, Telecom claimed that the operation of a waterbed effect is likely to be more complex than simply through an increase in mobile subscription prices, and that the actual range of price and quantity changes resulting from lower MTRs will be difficult to predict.⁹³⁴

⁹³¹ Covec's proposed correction uses Excel's 'Goal Seek' function to determine the increase in ARPU required to achieve the assumed level of revenue recovery. Covec submission, paragraph 153.

⁹³² Covec submission, paragraph 142.

⁹³³ Telecom submission, paragraph 45.

⁹³⁴ *ibid*, paragraphs 104, 106.

63. According to Telecom, the Commission's claim that higher mobile penetration is likely to have decreased the waterbed effect is in sharp contrast to the updated findings of Genakos and Valetti, which suggest that market penetration increases the impact of competition and therefore the waterbed effect. In Telecom's view:⁹³⁵

'the Commission's choice of an estimated range of 0% to 50% for the waterbed effect only in relation to its effect on mobile subscription prices is both too simplistic and too low and not based on empirical evidence.'

NERA

64. NERA argued that while the Commission modelled a waterbed effect through subscription prices, it is possible that such an effect will operate through a range of variables, including calling prices, text prices, coverage, roaming and handset prices.
65. NERA also noted that the Commission had assumed a constant waterbed effect (50%), despite concluding that lower MTRs would increase downstream competition. Given the empirical evidence that the strength of the waterbed effect is likely to be related to the level of competition in the downstream market, NERA argued that the waterbed effect should be increased over time.
66. The submission from NERA also refers to empirical research undertaken by Genakos and Valletti on the strength of the waterbed effect. NERA argued that a key finding of Genakos and Valletti was that the impact of competition on the waterbed effect is magnified by market saturation.
67. NERA also submitted that any reduction in termination rates may have different impacts on different customer groups, with competition for pre-pay customers (who tend to be net recipients of calls) being softened as a result. However, NERA noted that Genakos and Valletti found the opposite, that the waterbed effect tends to be less significant for pre-pay customers.

2degrees

68. In its cross-submission, 2degrees argued that in a perfectly competitive market, termination profits may be used to subsidise retail prices, and the waterbed effect may become an issue. However, according to 2degrees, it is more likely that in the New Zealand mobile market, the two mobile operators have retained termination rents in the form of monopoly profits, and that reductions in MTRs will have no effect on retail rates but will only impact upon the profits of the incumbent mobile operators.⁹³⁶
69. 2degrees referred to statements by the EC, that reductions in MTRs can be expected to lead to lower retail prices and increased usage, which would in turn offset any reduction in incoming termination revenues.⁹³⁷ In addition, the EC noted that in high penetration markets, handset subsidies may become less relevant to the extent that marginal customers rely increasingly on second-hand handsets.

⁹³⁵ *ibid*, paragraph 105.

⁹³⁶ 2degrees cross-submission, 18 August 2009, paragraphs 9.15-9.16.

⁹³⁷ *ibid*, paragraph 9.17.

70. 2degrees also referred to arguments made by Vodafone in the UK.⁹³⁸

‘Vodafone in the UK ran the waterbed argument ahead of regulation in 2002, arguing that proposed reductions in termination rates meant prices would increase, total call volumes would fall, prepay handset prices would increase, and 10 to 15 million customers would leave. On the contrary, retail prices have dropped significantly and mobile penetration and total call volumes have continued to increase since 2002.’

Concept

71. According to Concept’s submission on the draft:⁹³⁹

‘While a waterbed adjustment may be appropriate in a perfectly competitive market, in the New Zealand market, which is currently characterised by high concentration and high barriers to entry, a material waterbed effect is extremely unlikely.’

72. In its cross-submission, Concept commented that it is not obvious that there is a significant network externality in New Zealand, as current penetration levels suggest there may not be substantial gains from adding new mobile subscribers.⁹⁴⁰ Concept also noted that there may be a calling externality, in which case the efficient mobile termination rate would be set below marginal cost.

73. In respect of a waterbed effect arising from lower FTM termination rates, Concept argued that such an effect is likely to be small, due to the following reasons:⁹⁴¹

- the reduction in FTM prices will increase FTM volumes, which will offset the reduction in FTM termination revenues;
- the lack of competition between Vodafone and Telecom; and
- while higher mobile subscription prices may discourage mobile subscriptions, higher volumes of inbound FTM and MTM calls will make subscription more attractive.

74. In addition, Concept argued that mobile subscription is an ‘experience good’, such that current subscribers, who have experienced the benefits of a mobile phone, are likely to be less responsive to price increases than potential subscribers are to price reductions. Concept noted that elasticity estimates are typically made where prices are falling and demand increasing:⁹⁴²

‘since demand elasticity estimates are almost universally made in environments where prices are falling and subscription demand is increasing, they reflect the responsiveness of largely new subscribers to lower prices, rather than of existing subscribers to higher prices (which are rarely observed in practice).’

75. Concept argued that any waterbed effect arising from regulation of MTM termination rates is likely to be weak, and any such effect will be swamped by lower prices from increased competition in the mobile market resulting from cost-based MTRs.⁹⁴³

⁹³⁸ *ibid*, paragraph 9.22.

⁹³⁹ Concept submission, 28 July 2009, page 25.

⁹⁴⁰ Concept cross-submission, 18 August 2009, page 27.

⁹⁴¹ *ibid*, page 31.

⁹⁴² *ibid*, page 31.

⁹⁴³ *ibid*, page 32.

Dr Haucap

76. In a submission on behalf of 2degrees, Dr Haucap noted that:⁹⁴⁴

‘While it is clear from both theoretical models as well as empirical research that a waterbed effect can exist, the strength of the effect will depend on various parameters such as the mobile penetration rate and the degree of competition.’

77. According to Dr Haucap, Covec’s argument that the waterbed effect increases with penetration contrasts with empirical research funded by Vodafone, which found that the waterbed effect is lower in higher penetration markets. As noted by Dr Haucap, the authors explained this finding as follows:⁹⁴⁵

‘Intuitively, low penetration markets usually consist of heavy users for whom the waterbed effect is expected to be strong. But as the market becomes more saturated, this typically involves attracting marginal users who make and receive very few calls. Hence, we expect the waterbed effect to decrease as the market becomes more saturated because of the different types of consumers that are drawn into the mobile customer pool.’

78. Dr Haucap emphasised that the Genakos and Valletti study did not examine whether MTR regulation facilitated new entry, nor do they control for any asymmetry between mobile operators. Furthermore, he observed that competition in the New Zealand mobile market is unlikely to be of an intensity that would give rise to a strong waterbed effect, and that in respect of Covec’s proposed 75%.⁹⁴⁶

‘Therefore, I consider the assumed 75% waterbed effect to be overly optimistic. Given the high penetration rate and the low degree of competition I expect the waterbed effect to be much weaker, as suggested by the Commerce Commission in its Draft Report’

TUANZ

79. In its submission on the draft, TUANZ noted that it consistently argued against any waterbed effect.⁹⁴⁷ TUANZ submitted that the entry of 2degrees and possibly MVNOs will reduce the likelihood of other prices increasing to offset lower MTRs. TUANZ believe that even if there were to be some offsetting increases, consumers would still benefit from regulation.

Potential Impact of Regulation of Mobile-to-Mobile Termination Rates***Potential Benefits of Regulation of Mobile-to-Mobile Termination Rates*****Draft Report**

80. In the Draft Report, the Commission noted that above-cost MTRs are likely to result in downstream retail prices exceeding the cost of supplying retail services. The Commission also noted that retail prices (specifically, the average revenue per minute for MTM calling, as well as for retail mobile subscription and calling) had been falling in recent years, in line

⁹⁴⁴ Dr Haucap submission, paragraph 25.

⁹⁴⁵ *ibid*, paragraph 26.

⁹⁴⁶ *ibid*, paragraph 30.

⁹⁴⁷ TUANZ submission, page 4.

with reductions in the MTRs.⁹⁴⁸ Both the ACCC and the EC had also observed reductions in retail mobile prices that coincided with reductions in wholesale MTRs.

81. Vodafone had previously submitted that call traffic between mobile networks is typically balanced, with traffic flows unrelated to the size of the respective networks.⁹⁴⁹ As a result, Vodafone claimed that the net effect of a reduction in MTR will be close to zero, as a mobile network operator's reduction in outgoing termination costs is cancelled out by a corresponding reduction in incoming termination revenues, with nothing to pass through into retail mobile prices.
82. In response, the Commission made the following observations in the draft:⁹⁵⁰
- based on MTM traffic data from Telecom and Vodafone over the period between 2006 and 2008, the volume of off-net MTM traffic from Telecom to Vodafone exceeded the volume going from Vodafone to Telecom, with the imbalance diminishing as Telecom's market share increased;
 - for a small entrant mobile operator, there could be a potentially significant net outflow of traffic from the entrant's network, which, if combined with above-cost MTRs could represent a substantial drain on the entrant; and
 - if traffic were balanced, both entrant and incumbent mobile operators would be indifferent to regulation of MTRs. In addition, symmetric traffic flows would indicate that bill-and-keep (BAK) interconnection arrangements might be appropriate. However, experience in New Zealand and elsewhere suggests that entrants favour low MTRs (or BAK) and that incumbents are opposed to cost-based MTRs.
83. In the Draft Report, the Commission expressed a concern that above-cost MTRs may make it difficult for a small mobile entrant to compete with established mobile operators, to the extent that above-cost MTRs result in high retail off-net prices which in turn could generate net traffic flows from the entrant to the incumbent mobile operators. The Commission referred to similar concerns raised by other regulators, such as Ofcom, the EC, and the European Regulators Group (ERG). For example, the EC stated that:⁹⁵¹

'In this respect, it should first be noted that smaller mobile network operators are usually late (or later) entrants to the market and their smaller size is frequently due to the delay in their market entry. ... As smaller mobile players are usually net senders of traffic due to incumbent or first or second mobile entrants typically having much higher market shares and due to the presence of network effects which can be further reinforced by on-net/off-net price differentiation, the balance of termination-related payments is determined by the interaction of these two forces'

⁹⁴⁸ The Draft Report noted that over 2006-2008, the average retail price for MTM calls had fallen by nearly 35%; the average retail price for mobile subscription and mobile calling had fallen by just over 30%; and the MTR had fallen by 36%. Commerce Commission, Draft Report, paragraph 766.

⁹⁴⁹ For example, see Vodafone's September 2008 submission on the Commission's Issues Paper, paragraph 103; and Vodafone submission 13 February 2009, paragraph 57.

⁹⁵⁰ Commerce Commission, Draft Report, paragraphs 773 to 775.

⁹⁵¹ *ibid*, paragraph 778, quoting from EC Commission Staff Working Document accompanying the Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, "Implications for Industry, Competition, and Consumers", 7 May 2009, pages 24-25.

84. The ERG has also commented on the difficulties faced by small mobile operators in attracting customers in saturated markets in which above-cost MTRs have resulted in a differential in retail prices for on-net and off-net calls.⁹⁵²
- ‘This potential competition issue is, however, compounded when MTRs (charged by large networks) are significantly above costs really due to terminate calls. The extreme situation can appear when on-net prices are lower than MTR tariffs. As discussed, these considerations highlight the importance of setting MTRs at cost. ... If the MTR is above the retail price (equal to the on-net price of the larger network), then the smaller operator may in the limit be forced to incur a loss on its off-net calls, if it wants to be competitive.’
85. In the Draft Report, the Commission had regard to the average retail on-net prices in New Zealand, and how these retail prices (which in principle cover both the origination and termination of a MTM call, as well as other costs) related to the level of MTRs in the initial undertakings and in the Commission’s benchmarking. This indicated that the wholesale MTRs that were proposed in the initial undertakings were likely to be high relative to the retail on-net price for MTM calls and SMS, limiting the ability of an entrant to compete in the retail mobile services market.
86. The Commission concluded that a regulated reduction in MTRs to a level that reflects the cost of providing the MTAS will remove a significant barrier to expansion by a new entrant mobile operator and promote efficient competition in the downstream market.⁹⁵³
87. In considering the consequential benefits to end-users from such a barrier, the Commission referred to the difficulties in quantifying such an effect, particularly where entry has already occurred or is likely to occur to differing degrees under both the counter-factual and the factual. The Commission noted that the extent to which additional entry or expansion by a new entrant operator is promoted by cost-based MTRs will depend on a complex range of factors, including the likely volume and balance of interconnection traffic between the entrant and the other networks, and the relative magnitude of interconnection costs compared to the entrant’s total costs.⁹⁵⁴
88. The Commission gave an indication of the potential ‘static’ benefits that may arise from more vigorous competition in the retail mobile market, by looking at the impact on end-users of a 5% price reduction attributed to incremental entry arising from cost-based MTRs. The Commission considered that a 5% price effect was reasonable, based on observations of post-entry price reductions in Australia and the UK. The resulting gain to consumers from a more vigorous market entrant was estimated to be approximately \$43 million per annum, and a gain in total surplus of around \$11 million per annum.
89. The Commission also concluded that there were likely to be a number of additional benefits from cost-based MTRs. These include potential savings for consumers in relation to multiple handsets to the extent that high MTRs have contributed to a significant differential between retail on-net and off-net prices.⁹⁵⁵ In addition, increased competition arising from more efficient entry and expansion is likely to encourage investment in

⁹⁵² *ibid*, paragraph 785, quoting from ERG, *ERG’s Common Position on symmetry of fixed call termination rates and symmetry of mobile call termination rates*, ERG(07)83, page 98.

⁹⁵³ *ibid*, paragraph 790.

⁹⁵⁴ *ibid*, paragraph 789; also paragraph 793.

⁹⁵⁵ *ibid*, paragraph 809.

innovative technology in order to develop new services and maintain a competitive advantage over rivals.⁹⁵⁶

Submissions on the Draft Report

Vodafone

90. In response to the Draft Report, Vodafone submitted that reductions in MTRs are unlikely to increase competition in the mobile market, as MTRs are a cost and a source of revenue for mobile operators. According to Vodafone, there is no evidence to suggest that net payments from 2degrees to the existing mobile operators will be significant.⁹⁵⁷ Vodafone claimed that its commercial interconnection agreement with 2degrees will be more beneficial for 2degrees than regulation, as long as call patterns between 2degrees and Vodafone are similar to current patterns between Telecom and Vodafone.
91. Vodafone also argued that the Commission must construct a cost-benefit model in order to quantify the expected impact of regulation in the mobile market.⁹⁵⁸ Vodafone submitted that such a model would demonstrate that under all reasonable assumptions around traffic flows between networks, the size of net interconnection payments between operators could not represent a significant barrier to entry in the mobile market.
92. Vodafone also submitted that SMS traffic flows between networks will be largely balanced. This means that mobile operators both pay and receive termination fees, and that the effective SMS termination rate will be significantly lower than the headline rate.⁹⁵⁹

Covec

93. Covec expressed a number of concerns with the Commission's view that MTR regulation will promote competition in the mobile market.
94. First, while retail mobile prices have been falling in recent years, Covec argued that factors other than falling MTRs are likely to have contributed to this.⁹⁶⁰
95. Covec also commented on the Commission's view that net traffic flows between mobile networks may depend on the relative size of the networks, and that a small entrant may experience a significant outflow of traffic. According to Covec, if all mobile customers are identical, it is straightforward to demonstrate that traffic flows will be balanced regardless of market share.⁹⁶¹ Covec also argued that a mobile operator will compete for customers not only on the basis of termination revenues and payments, but also on the basis of subscription and call services provided to its own customers.⁹⁶²

⁹⁵⁶ *ibid*, paragraph 821.

⁹⁵⁷ Vodafone submission, 28 July 2009, paragraphs 354 to 366.

⁹⁵⁸ *ibid*, paragraph 276.

⁹⁵⁹ *ibid*, paragraphs 379 to 381.

⁹⁶⁰ Covec submission, 27 July 2009, paragraph 159.

⁹⁶¹ *ibid*, paragraph 162.

⁹⁶² *ibid*, paragraph 164.

96. As a result, Covec argued that a change in the MTR will alter the incentives that mobile operators face to compete for different types of customers:⁹⁶³

‘A lower MTR will make customers who make relatively many calls more attractive, and competition for them will intensify, while competition for customers who make relatively few calls will weaken.’

97. Covec submitted that on-net discounts are a way in which mobile operators compete, and are an outcome of competition rather than an attempt to stifle competition. Covec claimed that the Commission focused only on MTRs as a source of interconnection costs, and has ignored MTRs as a source of revenue for mobile operators. In addition, Covec stated:⁹⁶⁴

‘... the Commission appears to ignore the fact that reducing the FTM termination rate will reduce FTM termination revenues of all mobile operators, including entrants, to the extent that this is not offset by the waterbed effect. It is therefore difficult to see how FTM termination regulation can promote entry or competition in the mobile market.’

98. Covec also noted that the Commission estimated the gain in consumer and total surplus associated with a 5% reduction in mobile prices. However, according to Covec, the Commission has not demonstrated that the resulting benefits are due to regulation, rather than just entry.

Telecom

99. Telecom submitted that the Commission’s repeated concerns around above-cost MTRs being a barrier to entry and expansion in the retail mobile market have not been supported by any international evidence. Telecom referred to the experience in Bulgaria, where despite having the highest MTRs in the EU (13.5 eurocpm), and one of the highest mobile penetration rates in the world (135%), Vivatel was able to enter the mobile market and increase its mobile market share from 1% to 11% in the three years to 2009.⁹⁶⁵

NERA

100. In its cross-submission,⁹⁶⁶ NERA commented on Concept Economics’ analysis of the potential impact of regulating MTRs. NERA made a number of criticisms of Concept’s analysis.
101. First, NERA argued that Concept had adopted an extreme counter-factual in which 2degrees would be a marginal, or failing, competitor. According to NERA, this is not a credible scenario, given the \$250 million invested in 2degrees. In addition, NERA argued that there are numerous examples of sustained entry and expansion in the face of above-cost MTRs and on-net discounting, such as Meteor’s entry in Ireland (2001), Bouygues Telecom’s entry in France (1996), E-Plus’ entry into Germany (1994), and Orange’s entry into Spain (1999).⁹⁶⁷
102. Second, NERA submitted that Concept’s assumption that mobile prices will fall by 60% over five years as a result of MTR regulation fails a basic “sanity check”, as this would

⁹⁶³ *ibid*, paragraph 166.

⁹⁶⁴ *ibid*, paragraph 168.

⁹⁶⁵ Telecom submission, 28 July 2009, paragraph 72.

⁹⁶⁶ NERA cross-submission, 18 August 2009.

⁹⁶⁷ *ibid*, pages 3 and 4, also Appendix A.

result in New Zealand having the lowest mobile prices in the world.⁹⁶⁸ NERA argued that such a result would not be credible given New Zealand's characteristics, such as low population density, small population, and mountainous terrain. NERA also noted that Concept's price benchmarking does not control for possible drivers of price reductions other than entry.

103. Finally, NERA argued that Concept focuses only on the potential benefits of regulation, and ignores the possible detriments of regulation, including the waterbed effect and the direct costs of regulation.⁹⁶⁹

2degrees

104. According to 2degrees, a key barrier to infrastructure-based entry and expansion in the New Zealand mobile market is the combination of high MTRs and low on-net/high off-net retail pricing.⁹⁷⁰ 2degrees submitted that while the Commission had indicated a preference for cost-based access pricing to address this barrier, the Commission had not given adequate consideration to BAK, particularly for SMS for which termination costs are extremely low and which is a key service for an entrant.

105. 2degrees argued that the Commission's Draft Report had underestimated the potential benefits from regulation, as the cost-based MTR benchmarks used by the Commission overstate the true cost of supplying termination. 2degrees also argued that the Commission's assumption that entry will result in a 5% price reduction will considerably understate the level of benefits from entry:⁹⁷¹

'We appreciate that it is difficult to quantify the benefits of regulated market entry, especially when entry is imminent. But as the Commission has noted there is a vast difference between efficient competitive entry and the situation when the new entrant's capacity to vigorously compete is sharply constrained because mobile termination rates and closed net-pricing mean a new entrant will be a large out-payer of termination charges and restricted in its ability to compete for large parts of the market.'

106. 2degrees noted that if traffic between networks is balanced, the actual MTR will be irrelevant.⁹⁷² However, 2degrees submitted that retail price distortions are likely to lead to traffic imbalances, and in doing so are likely to affect competition in the mobile market. 2degrees proposed BAK as the appropriate pricing principle at the wholesale level, as this would be relatively easy and quick to implement, and also submitted that a non-discrimination requirement be introduced to prevent off-net price discrimination.
107. According to 2degrees, Vodafone and its experts have ignored a crucial point highlighted by Concept and Dr Haucap, namely that traffic flows between networks will depend on relative off-net prices.⁹⁷³
108. 2degrees also disagreed with Vodafone's claim that 2degrees would be better off under the commercial interconnection agreement than under regulation. According to 2degrees, Vodafone's claim is based on an assumption that:⁹⁷⁴

⁹⁶⁸ *ibid*, pages 5 to 11.

⁹⁶⁹ *ibid*, pages 14 and 15.

⁹⁷⁰ 2degrees submission, 28 July 2009, paragraph 1.6.

⁹⁷¹ *ibid*, paragraph 1.30.

⁹⁷² *ibid*, paragraph 5.25.

⁹⁷³ 2degrees cross-submission, 18 August 2009, paragraphs 7.1 to 7.8.

‘... traffic will be symmetrical because 2degrees will acquire customers from Telecom who will continue to make and receive the same number of calls as they did when they were Telecom users.

This argument completely ignores the retail distortions created by the combination of high MTRs and closed-net pricing. We reiterate our earlier submissions which discussed the bifurcation of the New Zealand market and the very low levels of cross-net traffic as a proportion of total traffic volumes in New Zealand.’

109. 2degrees argued that early indications of off-net traffic flows since its launch showed that Vodafone’s assumption of balanced traffic was incorrect.⁹⁷⁵
110. In a submission dated 16 October 2009,⁹⁷⁶ 2degrees commented on the revised undertakings offered by Telecom and Vodafone on 2 October 2009. 2degrees noted that the voice MTRs offered by Telecom and Vodafone remain significantly above the Commission’s cost benchmarks,⁹⁷⁷ while Telecom’s proposed hybrid BAK prices for SMS would in 2degrees’ view incentivise higher retail off-net prices in order to generate a net traffic inflow.⁹⁷⁸ According to 2degrees, Vodafone’s SMS MTR of 1.2cpSMS is “more plausible”, although 2degrees noted that Vodafone had now bundled the SMS undertaking with ‘implausible voice rates’.⁹⁷⁹

Dr Haucap

111. In a cross-submission on behalf of 2degrees, Dr Haucap argued that a combination of on-net discounting and high MTRs can act as a strategic barrier to entry in the retail mobile market.⁹⁸⁰ He argued that a reduction in MTRs will clearly reduce barriers to entry:⁹⁸¹

‘... one of the main rationales for the downward regulation of MTRs is the removal of strategic barriers to entry. If the number of firms is endogenous, market entry will almost always make markets more rather than less competitive. Economic theory and empirical evidence suggest that markets with more firms are more competitive than markets with fewer firms. Any analysis that focuses on competition between incumbent firms only while ignoring the effects on entry and on small operators will systematically underestimate the competitive effects induced by lower MTRs.

Put differently, and most importantly, the removal of barriers to entry to the retail mobile market is therefore likely to have first-order effects on welfare and consumer surplus, as lower MTRs allow for more intense competition to unfold through market entry, while other effects such as tariff rebalancing are likely to induce only second order effects.’

112. Dr Haucap also submitted that:⁹⁸²

‘... the welfare effects of enhanced competition are notoriously difficult to estimate due to the dynamic nature of competition. ... it is often considered a good approach for public policy to concentrate on market liberalisation and safeguarding the competitive process. Hence, the focus should be on removing artificial barriers to entry and preventing incumbent firms from erecting strategic barriers to entry as far

⁹⁷⁴ *ibid*, paragraphs 10.7 and 10.8.

⁹⁷⁵ *ibid*, paragraph 10.9.

⁹⁷⁶ 2degrees “Submission on Revised Undertakings”, 16 October 2009.

⁹⁷⁷ *ibid*, paragraph 3.1.

⁹⁷⁸ *ibid*, paragraph 3.16(b).

⁹⁷⁹ *ibid*, paragraph 1.4(d).

⁹⁸⁰ Haucap submission, paragraphs 3 and 4.

⁹⁸¹ *ibid*, paragraphs 9 and 10.

⁹⁸² *ibid*, paragraph 11.

as possible in order to let the firms compete on a level-playing field without further Government intervention.’

Concept

113. In its submission on the Draft Report, Concept provided its own analysis of the potential impact of a more vigorous entrant in the New Zealand mobile market. This involved a comparison of what was likely to happen in the event that MTRs were regulated, with what would occur in the absence of regulation.
114. Under Concept’s “factual” scenario of regulation, an efficient entrant would be able to overcome the barrier to entry/expansion of high MTRs and on-net discounting.⁹⁸³ As a result, the entrant would be able to stimulate vigorous price competition, competing aggressively in order to achieve scale in a market with high fixed costs. According to Concept, international experience shows that large price reductions have followed from network-based entry in other mobile markets. Concept analysed one scenario where prices fall by 60% over five years, with the bulk of this reduction occurring in the first two years, and another scenario in which the price reduction due to entry is 30%.
115. In the absence of regulation, Concept assumed that the entrant would either exit (such as occurred in Slovenia), or would continue in the market but only as a weak competitive constraint.
116. In considering the way in which regulation could be expected to increase competition in the mobile market, Concept discussed the significance of on-net discounting and above-cost MTRs. Concept argued that where the incumbent mobile networks use heavy on-net discounting, it will be difficult for an entrant to compete for subscribers, who will generally prefer to remain on the larger networks.⁹⁸⁴
117. According to Concept, the above circumstances will lead to a traffic imbalance, which will be exacerbated where the entrant offers lower off-net prices in order to be able to attract customers.⁹⁸⁵
- ‘To be able to offer discounts to the same range of customers, the entrant, having fewer on-net customers, would likely have to discount some off-net calls. Thus, their customers will call off-net relatively more often than customers of the incumbents. However, the size of the outpayments can also mean that the entrant is simply unable to viably offer customers a pricing package that will lure them away from the incumbent networks.’
118. Concept estimated the resulting benefits from regulation in the form of the five-year net present value increase in consumer surplus and total surplus.⁹⁸⁶ According to Concept’s results, a 30% price reduction would increase consumer surplus by approximately \$0.5 billion over five years, while a 60% reduction would increase consumer surplus by around

⁹⁸³ Concept submission, 28 July 2009, page 2.

⁹⁸⁴ *ibid*, page 17.

⁹⁸⁵ *ibid*, page 18.

⁹⁸⁶ Concept also considered the inclusion of a terminal value to capture the likely future benefits beyond the five-year timeframe. The inclusion of a terminal value significantly increases the benefits estimated by Concept.

\$2.4 billion over five years.⁹⁸⁷ The increase in total surplus over the period ranges from \$0.3 billion to \$1.3 billion, depending on the price reduction.

119. In its cross-submission, Concept developed an example to illustrate the difficulties faced by a small entrant when there is on-net discounting and high MTRs. According to Concept:⁹⁸⁸

‘Above cost termination charges exactly provide the foundation on which incumbents can add cost to the entry and expansion of competitors. When termination costs, whether of calls or texts (and texts are critical for entry at the low end of the market), exceed costs, on-net retail price discounts can be used to raise the entrant’s costs, thereby preventing the entrant from cutting prices towards more efficient levels, and possibly forcing exit.’

120. Concept compared the estimated margins that would be earned by each of Vodafone and 2degrees, in offering a retail plan equivalent to Vodafone’s Starter 2000 plan. The margins estimated by Concept were the retail revenues earned, less the wholesale termination payments, for Vodafone and for 2degrees. This required a number of assumptions to be made, in particular around the volume of off-net MTM and SMS traffic for each operator (in order to estimate the wholesale termination payments made).⁹⁸⁹ Concept found that for 2degrees to be able to offer a retail plan that was comparable to Vodafone’s Starter 2000 plan, it would earn a substantially smaller margin relative to that earned by Vodafone. Concept submitted that the 2degrees margin would unlikely cover the non-termination costs of supplying retail services.⁹⁹⁰
121. Concept concluded that on-net discounting and above-cost MTRs will prevent the entrant from competing vigorously with the incumbents.⁹⁹¹
122. Concept disagreed with Covec’s claim that market share does not influence traffic flows between networks. According to Concept, Covec’s claim ignores a fundamental relationship between price and demand:⁹⁹²

‘Holding all other things constant, and in the absence of on-net discounts, if different carriers set similar prices, then traffic between two networks in general would be balanced, unless some, but not all, carriers have an incentive to seek out customers with different propensities to make or receive calls. However, if outbound prices on one network are lower than on the other, traffic would be expected to become unbalanced (because customers on the cheaper network will make more calls).

...

A smaller carrier must provide benefits that are at least as attractive as the offers of its larger rivals, which can mean offering off-net discounts that create the equivalent of the larger carriers’ on-net discounts. This in turn creates call and text imbalances such that the smaller carrier has a net outflow of traffic, and thus makes net outpayments. If termination charges are high, this can have a significant impact on the smaller carrier’s viability.’

123. Concept submitted that early off-net traffic data involving 2degrees shows large imbalances for both voice and SMS traffic, and that while the level of imbalance might be expected to

⁹⁸⁷ *ibid*, page 21.

⁹⁸⁸ Concept cross-submission, 18 August 2009, pages 16 to 17.

⁹⁸⁹ In a subsequent submission on the 2 October undertakings, the authors of the Concept submission made a number of amendments to their earlier analysis, in particular moderating the level of off-net SMS imbalance. Ralph and Lanigan, 16 October 2009, footnote 3.

⁹⁹⁰ Concept cross-submission, 18 August 2009, page 20.

⁹⁹¹ *ibid*, page 22.

⁹⁹² *ibid*, page 25.

diminish over time, international data (for example, from Slovenia and France) indicates that a high level of imbalance remains:⁹⁹³

‘Thus, net outflows of traffic from the entrant to the incumbent as a result of the effects of on-net discounting are a reality, and not merely a theoretical possibility.’

124. The authors of the Concept submissions, Dr Ralph and Ms Lanigan, also commented on the 2 October 2009 undertakings offered by Telecom and Vodafone.⁹⁹⁴ Ralph and Lanigan updated their previous margin analysis (contained in the Concept cross-submission referred to above) to include the lower MTRs contained in the 2 October undertakings, and also amended a number of their underlying assumptions relating to the level of SMS traffic imbalance between the small network and the large network. Ralph and Lanigan concluded that the MTRs in the 2 October undertakings would continue to restrict the ability of the small entrant to compete.
125. Ralph and Lanigan also submitted that the out-of-balance SMS termination rates contained in Telecom’s 2 October undertaking would place a floor beneath retail off-net SMS prices. According to Ralph and Lanigan:⁹⁹⁵

‘... under the Telecom Undertaking text termination rate structure {of 2 October} any carrier is unlikely to cutting {sic} its retail off-net text prices below 2degrees current \$0.08 (ex-GST). This is because such a cut would risk pushing outbound texts beyond the 12% balance point, and then each additional text would earn less than the text termination fee thereby incurring losses.

...

The preceding discussion demonstrated that the \$0.08 marginal rate for terminating texts places a floor under retail off-net text prices.’

126. Ralph and Lanigan submitted that the average and marginal termination rates under Telecom’s proposed hybrid BAK pricing structure would exceed the implied on-net termination rate.⁹⁹⁶

Potential Detriments of Regulation of Mobile-to-Mobile Termination Rates

Submissions on the Draft Report

Vodafone

127. Vodafone submitted that regulation of the MTM termination rate will reduce competition between mobile networks, and result in a waterbed effect, for example in the form of lower handset subsidies and slower reductions in prices. According to Vodafone, the Commission’s draft overlooks this effect, and therefore underestimates the detriments associated with regulation.⁹⁹⁷

⁹⁹³ *ibid*, page 26.

⁹⁹⁴ Ralph, E., and E. Lanigan, “Submission to the Commerce Commission on the revised MTAS Undertakings”, 16 October 2009.

⁹⁹⁵ *ibid*, page 5.

⁹⁹⁶ *ibid*, page 6.

⁹⁹⁷ Vodafone submission, 28 July 2009, paragraph 208.

Covec

128. In its submission on the Draft Report, Covec argued that in addition to a waterbed effect from lower revenues from terminating FTM calls, regulation of the MTM termination rate will also induce a waterbed effect.⁹⁹⁸ According to Covec, when there are on-net discounts, subscription to a larger network will be more valuable to subscribers, and so as a network operator gains an additional subscriber, it will be able to extract additional revenue from its existing subscribers. This will strengthen the incentive to acquire new subscribers, resulting in greater competition.
129. Covec submitted that as MTM termination rates influence the extent of on-net discounting, a reduction in the MTM termination rate may lead to less on-net discounting, reducing the above network effects, and thereby lessening competition between mobile operators.
130. Covec submitted that the Commission's draft had ignored this incremental waterbed effect from regulating MTM termination rates.⁹⁹⁹

NERA

131. NERA submitted that even if a lower MTM MTR has a neutral effect on mobile operators (due to lower termination revenues being cancelled out through lower termination costs), the incentives of mobile operators will change, and that it is important to take these changed incentives into account.¹⁰⁰⁰

Concept

132. At the Commission's conference, Concept argued that the likely waterbed effect from MTM termination would result in lower prices. Furthermore, Concept submitted that the key benefits for consumers would arise from termination rates that allow effective competition through entry.¹⁰⁰¹

⁹⁹⁸ Covec submission, 27 July 2009, paragraph 125.

⁹⁹⁹ *ibid*, paragraph 142.

¹⁰⁰⁰ Conference transcript, page 43.

¹⁰⁰¹ *ibid*, page 42.

APPENDIX 6: SUBMISSIONS ON NON-CORE PRICE AND NON-PRICE TERMS AND OTHER ISSUES

Introduction

1. This Appendix addresses the following non-core price, non-price and other issues:
 - Minute+second / second+second pricing;
 - On-net / off-net price discrimination;
 - Asymmetric pricing;
 - Internationally-originated and VOIP-originated calls and SMS;
 - Reciprocal charges in Telecom's undertakings;
 - Handover deductions; and
 - Compatibility of undertakings with the access principles set out in the Act.
2. A summary of the Commission's preliminary views¹⁰⁰² is presented, followed by a summary of submissions and discussion of these issues at the MTAS Conference and in correspondence (where appropriate). In relation to matters regarding the process for addressing reciprocity issues and the submission of the Final Undertakings, these matters are primarily addressed in the body of this Final Report.

Minute+second / second+second pricing

Preliminary views from Draft Report

3. Telecom and Vodafone both initially provided for minute+second pricing in their undertakings (assessed in the Draft Report).
4. In the Draft Report the Commission noted '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'.¹⁰⁰³ Recognising that it had previously allowed minimum call durations, to recover call set-up costs, the Commission sought submissions on 'the significance and magnitude of call set up charges for mobile networks and parties preferred approach to recovering call set up costs'.¹⁰⁰⁴

¹⁰⁰² The Commission also included in the non-core price, non-price and other issues section of its Draft Report comments on pass-through, which have been substantively addressed in Section V and Appendix 5 of this Final Report, and a discussion of a possible process for reconciling non-price terms, which has been substantively addressed in Section II and Appendix 1 of this Final Report.

¹⁰⁰³ Commerce Commission, Draft Report, page 195, para 889.

¹⁰⁰⁴ Commerce Commission, Draft Report, page 195, para 891 and page 205, para 949.

Submissions on the Draft Report and discussion at the MTAS Conference

5. 2degrees¹⁰⁰⁵, CallPlus, Woosh and Kordia¹⁰⁰⁶, submitted that minute+second pricing was contrary to international best practice and should not be permitted.
6. Telecom¹⁰⁰⁷ submitted that minute+second pricing was appropriate, while Vodafone¹⁰⁰⁸ noted that there were a number of methods to recover call set-up costs.
7. At the MTAS Conference¹⁰⁰⁹ there was general acceptance that second+second pricing was the predominant form of wholesale pricing internationally, although there were also examples of other forms of pricing provided and different approaches to allowing for call set-up costs.

Discussion at the public meeting and in relation to the process to address reciprocity issues

8. At the public meeting to clarify matters related to the submission of revised undertakings, the Commission provided the following guidance in relation to the treatment of minute+second cf second+second pricing:¹⁰¹⁰

‘... under Clause 4 Schedule 3A of the Act the Commission may not recommend an undertaking for acceptance unless it complies with the standard access principles in Schedule 1. Access Principle 2 requires any undertakings received to be consistent with international best practice. The Commission notices that second + second pricing is the predominant method of pricing in other jurisdictions, as was discussed at the Conference. The Commission's expectation is therefore, that this approach should be adopted at the wholesale level in any revised undertakings that are submitted.’

9. The Commission subsequently noted, when inviting the parties to address reciprocity issues, that:¹⁰¹¹

‘in assessing undertakings against the factual for the purposes of making its final determination and recommendation, it will make adjustments to the MTRs proposed in undertakings as required to allow for comparability:

- of minute+second and second+second pricing structures. As the Commission has previously indicated, international best practice is for a second+second pricing structure and an adjustment would be required for any minute+second pricing structure in any undertakings ...’

Changes to treatment of minute+second / second+second pricing in revised undertakings

10. Telecom noted, when providing its revised undertaking of 2 October 2009, that in light of the Commission’s indication that second+second pricing was the international norm, that

¹⁰⁰⁵ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, page 62, para 4.2.

¹⁰⁰⁶ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 4, section 3.1; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, paras 1.18-1.20 and pages 11-15, section 9.

¹⁰⁰⁷ Telecom submission on Draft Report, page 32.

¹⁰⁰⁸ Vodafone submission on Draft Report, page 116, para 427.

¹⁰⁰⁹ Commerce Commission, *MTAS Conference Transcript Day One*, 2 September 2009, pages 117-120.

¹⁰¹⁰ Commerce Commission, *Transcript of Public Meeting re Clarification of Matters for Submission of Revised Undertakings*, 23 September 2009, page 11.

¹⁰¹¹ Commerce Commission, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009, page 4.

Telecom had ‘adopted second + second pricing in its Revised Undertaking from 1 July 2010.’¹⁰¹²

11. In the joint letter from Telecom and Vodafone, identifying where agreement had been reached addressing reciprocity issues, Vodafone indicated that it had ‘agreed to align with Telecom and 2degrees on second plus second billing.’¹⁰¹³ The price terms proposed in that letter provided for a 1 April 2010 start date for second+second billing.

On-net / off-net price discrimination

Preliminary views from Draft Report

12. In the Draft Report the Commission’s preliminary view was 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 to ensure a competitive market in the interests of the long-term benefits of end-users’.¹⁰¹⁴

2degrees

13. 2degrees submitted that:¹⁰¹⁵

‘a form of retail control, or continued monitoring to ensure on-net retail prices do not fall below a level equal to double the prevailing termination rates, may also be necessary for networks with substantial market power.’

14. In support of its submission, 2degrees noted¹⁰¹⁶ that the Commission has provided for retail price control in an earlier decision¹⁰¹⁷ regarding Vodafone’s Homezone service.

Telecom

15. Telecom cross-submitted that:¹⁰¹⁸

‘the regulation of retail pricing is beyond the scope of the Commission’s jurisdiction and the policy of the Act, which is to regulate supply between service providers. The Commission does not have an unfettered discretion to impose conditions or restrictions on Mobile Network Operators. Instead the Commission’s powers in the Act need to be interpreted in light of the section 18 purpose statement, which is clear that the statutory framework provides for the regulation of wholesale services and does not extend to regulating the terms on which a Mobile Network Operator supplies services to its own retail customers.’

Vodafone

16. Vodafone submitted that it agreed with the Commission’s draft views that:¹⁰¹⁹

¹⁰¹² Telecom, *Submission accompanying revised undertaking*, 2 October 2009, page 6, para 15. See also paras 14 and 16.

¹⁰¹³ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, page 2.

¹⁰¹⁴ Commerce Commission, *Draft Report*, page 197, para 897.

¹⁰¹⁵ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, page 4, para 11.

¹⁰¹⁶ See, for example, 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, page 4, para 12.

¹⁰¹⁷ Commerce Commission, *Final Determination on the application for determination for ‘Interconnection with Telecom’s fixed PSTN’*, 28 September 2006.

¹⁰¹⁸ Telecom, *MTAS Investigation – Cross-submission*, 18 August 2009, page 26, para 107. See also, Telecom, *Submission accompanying revised undertaking*, 6 May 2009, page 17, para 79.

‘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.’

17. Vodafone also submitted that:¹⁰²⁰

‘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. ... 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.’

18. Vodafone further cross-submitted that:¹⁰²¹

‘[it] strongly disagrees that banning on-net pricing would be beneficial for consumers. The introduction of a blanket ban on on-net price discounting would remove a key way in which mobile operators can differentiate their product offerings, and make prices on networks more similar rather than differentiated. In that sense, it would limit ways in which mobile operators can compete rather than promote competition.’ and

‘on-net price discounting is a pro-competitive way in which mobile operators can try to more quickly gain market share and distinguish themselves from their rivals. 2degrees’ proposal to use the Act to apply a blanket ban on all forms of on-net price discounting is contrary to the well understood principle of using the access regime to deal with interconnection/access pricing issues at the wholesale level and the flexibility of anti-competitive conduct provisions of the Commerce Act to deal with individual retail pricing concerns. In short, the Act is too blunt an instrument for dealing with retail price behaviour, and should not be used to ban all forms of on-net price discounting at the retail level. If the Commission has concerns about a particular on-net pricing offer, it has the powers to address these concerns using the Commerce Act.’

CallPlus / Kordia / Woosh

19. Nominated counsel for CallPlus / Kordia / Woosh submitted, in relation to the RI released information questionnaires from Telecom and Vodafone, that:¹⁰²²

‘in relation to on/off-net pricing, the Commission can incorporate a margin squeeze imputation test into the description of the recommended service, under Section 66. Access providers must pass the imputation test at all times. ...

An imputation test should also be developed to deal with horizontal squeeze issues including as to bundling and the issues identified by the Commission in its Draft Report.

Much less satisfactory options would be:

(a) margin squeeze reporting under Part 2B. This is less satisfactory as it involves reporting only (compliance with a test would not be required);

¹⁰¹⁹ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services – Submission*, 28 July 2009, page 12, para 48. See also Vodafone, *Submission on the Schedule 3A Undertakings provided on 12 January 2009*, 13 February 2009, pages 45-52, paras 137-172.

¹⁰²⁰ Ibid.

¹⁰²¹ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services - Cross-submission*, 18 August 2009, page 58, para 200.

¹⁰²² Wigley & Company submission on behalf of CallPlus, Woosh and Kordia, *MTAS: Submissions on the Fixed and Integrated Operators' data – Restricted Information version*, page 3, paras 15, 17 and 18.

(b) A Section 9A review, with a view to finding solutions to the problems.’

Asymmetric pricing

Preliminary views from Draft Report

20. In the Draft Report the Commission’s preliminary view was that it had ‘not been provided any justification for asymmetric pricing in either undertakings or the factual of regulation’.¹⁰²³ The Commission sought submissions on whether there was ‘evidence of differing cost structures for different operators which could be grounds for asymmetric pricing, and the views of interested parties over the timeframe for any asymmetric pricing to be phased out’.¹⁰²⁴

2degrees

21. 2degrees submitted that cost-based reasons and network externalities may justify asymmetry in its favour.¹⁰²⁵ 2degrees further submitted, with reference to the EC *Recommendation on termination rates* suggestion that where asymmetric rates are used they should be phased out within four years of entry, that:¹⁰²⁶

‘[it] could be argued that given the NZ context where 2degrees’ expansion (and thus ability to achieve scale) will be restricted in (at least) the first 1-2 years of entry, the maximum timeframe should be longer in NZ – say 5 years.’

22. The final undertakings submitted by 2degrees¹⁰²⁷, although subsequently withdrawn, did not include asymmetric pricing, although 2degrees did note that ‘glide-paths were designed in other jurisdictions to provide asymmetric prices in a new entrants’ favour.’¹⁰²⁸
23. However, 2degrees also submitted, when withdrawing their undertakings, that:¹⁰²⁹

‘If the market is distorted in favour of large networks through above cost termination rates then, in order to minimise those distortions it would be appropriate to allow a new entrant to enjoy termination rates at a higher level to the incumbents.’

Telecom

24. Telecom submitted that:¹⁰³⁰

‘the Commission should apply equal termination rates for all mobile operators. ... the termination charges for 2 Degrees would cover the weighted average cost of operating its network and the roaming charges its pays a third party network operator and asymmetric MTRs would not apply.’

CallPlus / Kordia / Woosh

25. CallPlus submitted that:¹⁰³¹

¹⁰²³ Commerce Commission, Draft Report, page 197, para 901.

¹⁰²⁴ Commerce Commission, Draft Report, page 205, para 950.

¹⁰²⁵ 2degrees submission on Draft Report, page 62, para 4.3.

¹⁰²⁶ 2degrees submission on Draft Report, page 62, para 4.4.

¹⁰²⁷ 2degrees, *Undertakings submission*, 2 October 2009, page 9, para 10.

¹⁰²⁸ *Ibid.*

¹⁰²⁹ 2degrees, *Process for the final stage of MTAS investigation*, 16 December 2009, page 3, para 11.

¹⁰³⁰ Telecom, *Submission on Draft Report*, 28 July 2009, pages 20-21, para 88.

¹⁰³¹ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 3, section 2.

‘it is critical that a single rate is established for mobile termination regardless of whether the service is mobile to mobile or fixed to mobile as these are substitutable services and a difference in rates will create distortions in the market.

It is also important that a single rate is established regardless of the network operator. The current undertakings create the situation where rates to one provider will become more than the other provider. This creates problems at a retail and wholesale level.’

26. At the MTAS Conference, the nominated counsel for CallPlus, Kordia and Woosh noted that any prior submission by those parties that asymmetric rates should be considered was withdrawn.¹⁰³²

Discussion at the MTAS Conference

27. At the MTAS Conference there was limited discussion of the issue of asymmetry, given the withdrawal of any prior proposal to consider asymmetric rates by CallPlus, Kordia and Woosh, and the absence of any asymmetric rates in the undertakings that were before the Commission at that time.¹⁰³³

Internationally-originated and VOIP-originated calls and SMS

Preliminary views from Draft Report

28. In the Draft Report the Commission’s preliminary view was that ‘the service description for the MTAS should include internationally-originated and VOIP-originated calls and SMS, where these are handed over at a MSC in New Zealand’.¹⁰³⁴

TelstraClear

29. TelstraClear submitted that it supported.¹⁰³⁵

‘mobile termination regulation of traffic from other New Zealand networks, irrespective of where the traffic was originated ... [and noted there was] no technical or cost difference in the termination of a call from a New Zealand network to the terminating mobile carrier.’

CallPlus / Kordia / Woosh

30. CallPlus, Kordia and Woosh submitted that they:¹⁰³⁶

‘support[ed] the Commissions preliminary view with respect to internationally originated charges & VoIP calls. There should be no artificial differentiation by origination – neither geographic, technology nor network of origin. ... There is no economic justification for Telecom to price discriminate between international & domestically originated calls. ... When a carrier such as CallPlus hands over an internationally originated call to Telecom in New Zealand it does so in exactly the same manner as with its domestic traffic’.

¹⁰³² Commerce Commission, *MTAS Conference transcript – Day One*, 2 September 2009, page 116.

¹⁰³³ See paragraphs [508 – 509] regarding discussion of the withdrawal of asymmetric rates at the Conference.

¹⁰³⁴ Commerce Commission, *Draft Report*, page 201, para 923.

¹⁰³⁵ TelstraClear, *Schedule 3 investigation into regulation of mobile termination: Submission on Commerce Commission Draft Report*, 28 July 2009, page 8, paras 26 and 28.

¹⁰³⁶ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 5, section 3.2; and, Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1. See also CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, para 1.21 and pages 16-21, section 10.

31. CallPlus, Kordia and Woosh also noted a range of cost savings in relation to internationally originated calls that they submitted meant that there was ‘a strong case for a lower mobile termination for internationally originated calls.’¹⁰³⁷

Vodafone

32. Vodafone noted¹⁰³⁸ that their undertakings included VOIP-originated calls, subject to technical conditions, and submitted¹⁰³⁹ that it agreed:

‘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.’

33. Vodafone initially submitted that internationally-originated calls should not be included in the scope of the MTAS, stating that it did:¹⁰⁴⁰

‘not consider that the Commission has yet demonstrated sufficient reason for including in the service description, and therefore regulating, internationally-originated calls and SMS.’

34. Vodafone further submitted that the costs of terminating internationally-originated calls was higher than that for domestically-originated calls¹⁰⁴¹, that it did not agree with the Commission’s assessment that the Government Statement of Economic Policy and consideration of GATS required that internationally-originated calls and SMS be included within the scope of the MTAS¹⁰⁴² and that the benefits of reducing the MTRs for internationally-originated calls would not accrue to New Zealand end-users.¹⁰⁴³

Telecom

35. Telecom initially submitted that it was:¹⁰⁴⁴

‘justified in applying a different charge for VOIP originated and IO Calls and also in requesting arrangements that recognise the true location of the originating party.’

36. Telecom further submitted that there would be no benefits to New Zealand end-users from reducing the MTRs for internationally-originated calls¹⁰⁴⁵ and that, while it had no objection to VOIP calls per se, it was concerned that ‘often the true location of the originating party is disguised, which in turn facilitates arbitrage.’¹⁰⁴⁶

¹⁰³⁷ Ibid.

¹⁰³⁸ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services – Submission*, 28 July 2009, page 129, para 471

¹⁰³⁹ Ibid, page 129, para 472.

¹⁰⁴⁰ Ibid, page 122, para 444.

¹⁰⁴¹ Ibid, page 123, para 448, and page 124, para 453.

¹⁰⁴² Ibid, page 123, paras 449-450.

¹⁰⁴³ Ibid, pages 122-123, paras 445-446.

¹⁰⁴⁴ Telecom, *Submission accompanying revised undertaking*, 6 May 2009, page 17, para 78. See also, Telecom, *Cross-submission*, 18 August 2009, pages 28, paras 116-117.

¹⁰⁴⁵ Ibid, page 15, para 71.

¹⁰⁴⁶ Ibid, page 16, para 76.

Changes to treatment of internationally-originated and VOIP-originated calls and SMS in revised undertakings

37. Both Telecom and Vodafone¹⁰⁴⁷ have confirmed that internationally-originated and VOIP-originated calls and SMS, handed over at a MSC in New Zealand, will be covered by their undertakings, and advised that they would make amendments to those their Final Undertakings accordingly, stating:¹⁰⁴⁸

‘Telecom has agreed to include **internationally-originated traffic (handed over in NZ)** within the scope of its undertaking in response to Access Seeker concerns. Vodafone and 2degrees (we understand) have confirmed that they already treat **all traffic handed over in NZ** in the same way. Vodafone has agreed to make this explicit in its undertaking terms.’ (emphasis added)

Reciprocal charges in Telecom’s undertakings

Preliminary views from Draft Report

38. In the Draft Report the Commission’s preliminary view was ‘that the reason provided by Telecom [for non-reciprocal charges], being a difference in costs between Telecom as an access provider and the likely costs of an access seeker in interconnecting, appears reasonable’ and the Commission invited ‘submissions on the reasonableness of these non-reciprocal charges provided for under the Telecom undertaking’.¹⁰⁴⁹

CallPlus / Kordia / Woosh

39. CallPlus, Kordia and Woosh submitted that:¹⁰⁵⁰

‘both parties to the interconnection should meet their own costs in building to the other network operator. If links are one-way then the cost of the link should be born by the person wanting to interconnect – i.e. the party sending the traffic for termination. If the links are bidirectional then the costs should be shared.’

2degrees

40. 2degrees submitted that a number of Telecom’s charges, which were non-reciprocal, were not ‘industry standard’.¹⁰⁵¹

Telecom

41. Telecom submitted, reiterating their submission¹⁰⁵² on the initial undertakings, that the non-reciprocal charges reflected the one-off costs of interconnection incurred by Telecom.¹⁰⁵³ Telecom also noted that it had withdrawn the charges for interconnection links which

¹⁰⁴⁷ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, pages 2 and 5. See further discussion at paragraphs 889 to 896.

¹⁰⁴⁸ Ibid, page 2.

¹⁰⁴⁹ Commerce Commission, Draft Report, pages 201 and 202, paras 926 and 927.

¹⁰⁵⁰ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 8, section 3.7; and, Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1.

¹⁰⁵¹ 2degrees, *Undertakings Submission*, 2 October 2009, page 12, para 5.1.

¹⁰⁵² Telecom, *Submission accompanying revised undertaking*, 6 May 2009 page 19, paras 89 and 90.

¹⁰⁵³ Telecom, *Submission on undertakings submitted 2 October 2009*, 16 October 2009, pages 9-10, para 35(a).

2degrees objected to, as these were not part of the MTAS service given the move to MSC handover.¹⁰⁵⁴

Changes relating to co-location at MSCs in revised undertakings

42. Telecom and Vodafone submitted that the set-up charges provided in their undertakings were appropriate, noting that these charges only apply to new interconnects. In addition, Telecom and Vodafone have amended their revised undertakings to provide for access to their MSCs and co-location at their MSCs. Telecom have provided for co-location at additional prices based on the UCLL Co-location STD, with reciprocal provisions for Access Seekers, while Vodafone have provided a flat-rate charge for co-location, which appears to be broadly comparable to the Telecom prices.¹⁰⁵⁵

Handover points / transit costs

Preliminary views from Draft Report

43. In the Draft Report the Commission noted that it had proposed a service description in relation to ‘Termination (and its associated functions) on a **cellular mobile telephone network ...**’.¹⁰⁵⁶ The Commission further noted, in relation to handover arrangements, that:¹⁰⁵⁷

‘Inherent in [the proposed service description] is that the access seeker will handover calls and SMS at a MSC. Accordingly, the Commission’s preliminary view is that the handover deductions included by Telecom in their undertaking is not appropriate’.

CallPlus / Woosh / Kordia

44. CallPlus, Woosh and Kordia submitted that Telecom’s proposed approach to handover arrangements was inappropriate and overestimated transit costs, which they considered were more likely to be approximately 0.1 to 0.2 cpm. CallPlus, Woosh and Kordia submitted that clarity was required on the number of handover points to be provided for, and considered that 16 handover points would be appropriate. CallPlus, Woosh and Kordia submitted that MTR rates should be based on local handover, as that would be most efficient, with transit arrangements to be reached where the mobile operator sought handover outside of a local area.¹⁰⁵⁸
45. At the MTAS Conference, CallPlus noted that some ‘fixed line operators who currently build out and have built out to 24’, and that ‘the more MSCs there are the more efficient it is for us, but I wouldn’t want to overstate the point because in actual fact the cost of national transit is pretty minimal.’¹⁰⁵⁹

¹⁰⁵⁴ Ibid, page 10, para 35(c).

¹⁰⁵⁵ Telecom and Vodafone, *Process to address alignment of revised MTAS undertakings*, 23 November 2009, pages 5 and 6. See also Telecom, *Submission on undertakings submitted 2 October 2009*, 16 October 2009, pages 9-10, para 35(a).

¹⁰⁵⁶ Commerce Commission, Draft Report, page 202, para 932.

¹⁰⁵⁷ Ibid, page 203, para 933.

¹⁰⁵⁸ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 7, section 3.6; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, para 1.18.

¹⁰⁵⁹ Commerce Commission, *MTAS Conference Transcript – Day 2*, 3 September 2009, page 216.

Telecom

46. Telecom submitted that:¹⁰⁶⁰

‘[It] had examined the implications of changing the current handover model (at fixed network POIs) to see what would be required to implement MSC handover. We do not yet have detailed costings, but our initial conclusion is that this would be a very significant change to the networks of all carriers, even 2 Degrees.

Our revised Undertaking allows for MSC handover from 1 January 2011 (being the date of alignment with the ACCC rates) to allow carriers that wish to, to re-configure their networks to take advantage of this change. Commercial transport charges would then apply to any network operator who did not build the capability to hand all mobile calls over at the MSCs.’

47. At the MTAS Conference Telecom indicated it had not at that stage modelled the costs of transport from a LICA point of interconnection to a MSC.¹⁰⁶¹

Vodafone

48. Vodafone submitted that it agreed ‘with both aspects of the Commission’s preliminary view’,¹⁰⁶² referring to an earlier submission that Telecom’s proposed approach would have ‘the effect of imposing additional national transport costs on its competitors.’¹⁰⁶³

49. Vodafone had also earlier proposed that:¹⁰⁶⁴

‘If Telecom wishes to hand over its FTM calls at a location that is remote from where the Access Provider has an MSC (instead of Telecom carrying the call on its own national transport network), then the Access Provider should be entitled to charge for the national transport service it is providing to Telecom (from the Telecom handover point to the Access Provider’s MSC), in addition to the MTAS (which is from the Access Provider’s MSC out to the handset).’

50. Vodafone cross-submitted that:¹⁰⁶⁵

‘Handover at MSCs should not be obligatory, but any regulated rate should be based on MSC handover. If an operator such as Telecom wishes to hand over FTM calls at fixed network POIs, Vodafone would be happy to provide a commercial termination price that includes both the MTAS termination service component from the MSC to the handset, plus the national transmission component from the handover point to the MSC, for which there is a competitive market.

Changes to treatment of handover arrangements in revised undertakings

51. The Commission noted, when inviting the parties to address reciprocity issues, that:¹⁰⁶⁶

¹⁰⁶⁰ Telecom, *Submission on Draft Report*, 28 July 2009, page 27, paras 116-117.

¹⁰⁶¹ Commerce Commission, *MTAS Conference Transcript – Day 2*, 3 September 2009, page 216.

¹⁰⁶² Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 28 July 2009, page 130, para 478.

¹⁰⁶³ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, page 69, para 224(a).

¹⁰⁶⁴ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, page 70, para 224(b).

¹⁰⁶⁵ Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services Cross-submission*, 18 August 2009, page 74, para 273.

¹⁰⁶⁶ Commerce Commission, *Process to address reciprocity issues in relation to revised MTAS undertakings*, 9 November 2009, page 4.

‘in assessing undertakings against the factual for the purposes of making its final determination and recommendation, it will make adjustments to the MTRs proposed in undertakings as required to allow for comparability: ...

- between the Commission’s benchmarks and any undertakings that do not include, as part of the MTRs proposed, transport costs between MSCs. Transport between MSCs is, with one exception, included in the MTRs in the benchmark set and an adjustment would therefore be required when making a comparison of an undertaking’s rates against the factual if transport costs were not included in the MTRs included in an undertaking.’

52. Telecom have amended their revised undertakings to:¹⁰⁶⁷

‘[remove] the 3.5c origination charge that was incurred where a mobile network operator did not have a local point of interconnect for Telecom to hand over where a call originated on Telecom’s fixed network. Our Revised Undertaking now requires Telecom to hand over FTM traffic at the destination carrier’s MSC without deduction for the transport component. This also means that fixed network carriers whose end users call Telecom’s mobile network will be obliged to get those calls to the Telecom MSC for handover, or purchase a commercial transport service to carry the calls from their local point of handover to the Telecom MSC.’

Compatibility of undertakings with the access principles set out in the Act

Preliminary views from Draft Report

53. In the Draft Report the Commission’s preliminary view was “that Telecom’s and Vodafone’s undertaking in substance are compliant with the standard access principles and the limits on those principles in the Act.”¹⁰⁶⁸ Having previously determined that 2degrees initial undertakings were not capable of being recommended for acceptance, the Commission invited:¹⁰⁶⁹

‘2degrees, if it chooses to submit revised undertakings, to provide an assurance that 2degrees’ undertakings comply with the standard access principles and the limits on those principles in the Act, and comments on how each of the standard access principles is met.’

2degrees

54. 2degrees submitted that they were willing to:¹⁰⁷⁰

‘submit a revised BAK undertaking which ...[i]ncorporates the standard access principles and limits on the application of the standard access principles set out in Schedule 1 of the Act.’

Telecom and Vodafone

55. Telecom¹⁰⁷¹ and Vodafone¹⁰⁷² have both provided assurances that they consider their undertakings comply with the standard access principles and the limits on those principles in the Act. The standard access principles and the limits on those principles in the Act are explicitly reflected in the Telecom¹⁰⁷³ and Vodafone¹⁰⁷⁴ undertakings.

¹⁰⁶⁷ Telecom, *Submission accompanying revised undertaking*, 2 October 2009, page 9, para 29.

¹⁰⁶⁸ Commerce Commission, *Draft Report*, page 204, para 941.

¹⁰⁶⁹ Commerce Commission, *Draft Report*, page 204, para 942.

¹⁰⁷⁰ 2degrees, *Submission on Commerce Commission Draft Report on MTAS*, 28 July 2009, page 49, para 8.2.

¹⁰⁷¹ Telecom, *Submission accompanying revised undertakings*, 6 May 2009, page 20, para 92.

¹⁰⁷² Vodafone, *Telecommunication Act 2001: Schedule 3 Investigation into Regulation of Mobile Termination Access Services*, 6 May 2009, pages 65-66, paras 215-218.

¹⁰⁷³ Telecom, *Annexure 1 – Mobile termination terms*, 16 December 2009, pages 13-14, clauses 2.3-2.5.

Scope of the MTAS Investigation

Preliminary views from Draft Report

56. In the Draft Report, the Commission proposed a service description for the MTAS, as part of the proposed regulatory change recommended by the Commission, that included:¹⁰⁷⁵

‘Termination (and its associated functions) on a cellular mobile telephone network of:

- voice calls originating on a fixed telephone network;
- voice calls originating on another cellular mobile telephone network; and
- short-message-service (“SMS”) originating on another cellular mobile telephone network.’

CallPlus / Woosh / Kordia

57. CallPlus, Woosh and Kordia submitted that the scope of the regulated MTAS service description should incorporate ‘voice calls where the ‘Calling Pays Principle’ is reversed in order to enable a consumer service i.e. Calls to Toll free.’¹⁰⁷⁶

TUANZ

58. TUANZ submitted that the:¹⁰⁷⁷

‘charge to terminate calls from mobiles on freephone numbers [was] a major inhibition to some larger TUANZ members. A recent survey of TUANZ members showed that 85% of respondents accepted freephone calls from land lines, but only 75% from mobiles. The dominant reason for this discrimination was the cost differential.’

Linktel

59. Linktel submitted that:¹⁰⁷⁸

‘calling card agreement[s] must be included in the MTAS Investigation’ and that the ‘price difference of on-net mobile origination and interconnect origination creates a barrier to entry which is impossible for any fixed line carrier to compete.’

Telecom

60. Telecom cross-submitted that it did not consider it would be appropriate to include mobile to toll-free calls within the scope of the MTAS Investigation, noting that it did not consider previous reasons for not investigating mobile origination had materially changed, and that

¹⁰⁷⁴ Vodafone, *Undertaking to the Commerce Commission under Schedule 3A in respect of the Vodafone Mobile Termination Access Services*, 16 December 2009, page 28, clause 2.24.

¹⁰⁷⁵ Commerce Commission, *Draft Report*, 30 June 2009, page 208, para 959.

¹⁰⁷⁶ CallPlus, *Submission on the Draft Report and Revised Undertakings*, 27 July 2009, page 6, section 3.4; Woosh and Kordia, *Submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 28 July 2009, page 10, para 8.1; and CallPlus, Woosh and Kordia, *Cross-submissions to the Commerce Commission in relation to MTAS schedule 3 Draft Report*, 18 August 2009, page 4, para 1.18

¹⁰⁷⁷ TUANZ, *Commerce Commission Draft Report on Whether Mobile Termination Access Services Should Become Designated or Specified Services: Submission from TUANZ*, 28 July 2009, page 2.

¹⁰⁷⁸ Linktel, *RE: Schedule 3 Investigation into mobile termination access services (MTAS) – Review of classification of information under the MTAS Confidentiality Order and request for information about commercial interconnection agreements*, 24 July 2009, pages 1 and 2.

the Commission would need to commence a separate Schedule 3 investigation to include additional services.¹⁰⁷⁹

¹⁰⁷⁹ Telecom, *Cross-submission*, 18 August 2009, pages 28-29, paras 118-120.