VODAFONE NEW ZEALAND LIMITED SUBMISSION TO THE COMMERCE COMMISSION

Schedule 3 Investigation into Regulation of Mobile Termination

Cross submission on submissions on Draft Report

Thursday, 23 December 2004

PUBLIC VERSION

I Summary

1. This document is Vodafone's cross-submission on the issues raised by submissions on the Commission's Draft Report on the Regulation of Mobile Termination.

2. We cover six points in this cross-submission:

Two-sided market definition is the best approach

3. We continue to believe that a two-sided market definition is the only coherent approach to take to the analysis of competitive conditions in relation to mobile termination. We support Telecom's submission on these points.

4. We criticise Cave and Valletti's argument for TelstraClear that regulating MTRs to TSLRIC levels must always be welfare maximising. We think that Cave and Valletti have misjudged the extent of the negative impacts on mobile users of MTR regulation.

5. We criticise TUANZ's submission that mobile to mobile termination rates should be regulated, especially since the Commission has not done any work on the implications of such regulation. We think that mobile to mobile termination regulation would not generate benefits for end-users.

We do not think MTR regulation will promote competition

6. Telecom appears to agree with our hypothesis that increasing margins for fixed operators will not necessarily lead to more competition in the market for fixed-to-mobile calls.

7. TelstraClear seems to support our argument that regulation of MTRs is equivalent to price control. We say that this is not the purpose of the Telecommunications Act.

There is no precedent for a one-off cut in prices of this size

8. In its submission, Telecom presents detailed information on the extent to which termination rates are taken into account in pricing of handsets. To us this data supports our arguments for a glidepath. Without allowing time for the implementation of MTR reductions, the risk of negative shocks for mobile consumers is increased.

9. We still cannot find any regulator that has cut MTRs by as much as 45% in one go. The French regulator has just recently made a decision to cut MTRs about the same percentage as the Commission proposes (although it may yet end up being greater). But the French proposal involves both a three year glidepath and retail passthrough.

The benefits of regulation are overstated

10. Marsden Jacobs Associates (MJA) for TelstraClear presents an alternative cost/benefit analysis, arguing that the Commission's analysis is too conservative. We explain why we do not think the MJA analysis is robust.

11. We criticise TelstraClear's argument that welfare transfers to consumers should be counted as benefits, and support the normal view that economic efficiency is the standard for determining whether regulation is justified or not.

There are dynamic efficiency risks from MTR regulation

12. We agree with TelstraClear that 3G termination will be a similar service to 2G termination. We think that the Commission is likely to see them as in the same market at some point in the future when 3G termination is an established service.

13. Our 3G investment is hundreds of millions of dollars, it generates far more capacity on our network than our existing customers use, and it enables services for which demand is as yet unproven. On this basis we disagree with TelstraClear's view that our 3G investment is low cost and low risk.

14. Our major concern around 3G is that the Commission will regulate too soon in advance of an understanding of the demand characteristics that will drive the costs of the service. There is a risk that the effect of regulation will be asymmetric: returns will be constrained by regulation and mobile operators will face losses should demand fail to meet the expectations implicit in the regulated price. Regulating too soon would send negative signals to investors about their chances of making a return on investments in New Zealand, and this could have negative long-term impacts on end-users.

15. We also see significant practical difficulties with regulating 3G at this point. Little of the information required to assess the relative efficiencies of regulating or not regulating 3G is currently available. TelstraClear seems to say that it is virtually impossible to regulate 2G and not 3G. Telstra apparently does not share this view. And there seem to be many countries that regulate one but not the other.

The service specification should build in passthrough and a glidepath

16. We present our proposed service specification in answer to that of TelstraClear. Our proposed regulation builds in a glidepath for any MTR price cut and a requirement for retail passthrough for operators to get access to the reduced MTR prices.

17. Overall we remain unconvinced that there is a compelling case for MTR regulation at all. We are also steadfast in our view that if the Commission is to regulate it must use a glidepath, require passthrough into retail prices, and exclude 3G and MTM termination.

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III Introduction

18. This is Vodafone's cross submission on some of the issues raised by submissions on the Commission's Draft Report.

19. We have also attached a recent paper by David Evans on market power in termination that we think the Commission will find useful.

20. Nothing in this submission is confidential.

21. For ease of reference, the structure of this document follows as closely as possible the structure of our main submission. So there is a section devoted to each of mobile market definition and competition assessment, FTM competition assessment, the glidepath, the cost/benefit analysis, and the implications of regulation for dynamic efficiency. We also thought it important to cross-submit on the appropriate definition of the service specification, the broad details of which we covered in our main submission.

22. There are appendices that cover the detail of our proposed service specification, and some broader regulatory issues raised by the submissions of Econet, and TelstraClear.

23. We refer to paragraphs in many other documents in the course of this cross submission. For convenience we assume familiarity with the submissions that have been presented, and we only reference the document more fully when it would not be clear from the context which document we are referring to.

IV A two-sided market definition is the best approach

24. Telecom agrees with us on market definition. We have attached with this submission a very recent paper from David Evans that outlines the position very clearly, and supports our view that the Commission should adopt a two-sided market definition.

25. In their paper that forms part of TelstraClear's submission, Cave and Valletti make a number of points about the relevance or importance of two-sided market analysis, and the welfare implications of regulation to cost-based prices. We question their analysis.

26. TUANZ argues that the Commission should regulate mobile to mobile termination rates. We explain below why we think TUANZ's views are mistaken.

Two-sided market is the only coherent definition

27. Telecom frequently states in its submission that the Commission should take a two-sided approach to its market definition (see for example para 127).

28. We agree with Telecom on this point. We have attached a very recent paper from David Evans, an acknowledged expert on these issues, which explores whether mobile operators are dominant in a market for wholesale termination.

29. Many reputable international economists now recognise that a two-sided market definition is the best approach to analysis of mobile termination issues. Jordi Gual (2003), Jerry Hausman (2004), David Evans (2002, 2004), Julian Wright (2004), and Mark Armstrong (2002) all point out the flaws of a one-sided market analysis. The regulators themselves are the main proponents of a one-sided market definition in relation to call termination on mobile networks.

30. One exception is Martin Cave, and even his analysis for TelstraClear does not reject the two-sided approach. At para 13 of the Cave and Valletti paper the authors say a two-sided approach will lead to the same conclusions on remedies as a one-sided market definition. At para 25 Cave and Valletti point out that it can still be important to take account of any impacts on mobile origination, because higher termination charges may induce mobile operators to reduce mobile outgoing and subscription prices and thereby attract more mobile subscribers.

31. We are not as equivocal as Dr Cave. We continue to think that it is best to put termination and origination in the same market for the purposes of competition assessment.

The Commission should define a single mobile services market

32. Cave and Valletti characterise mobile termination as a "competitive bottleneck" and argue that even if the mobile sector is perfectly competitive, mobile firms have an incentive to set termination rates above cost. This results in below-cost mobile subscriptions.

33. The implication of this view is that there are too many mobile subscribers and too few fixed-to-mobile calls from a welfare point of view. Cave and Valletti argue that regulation of mobile termination rates can improve welfare even when the mobile sector is highly competitive.

34. We have three concerns with this argument:

- It seems to miss the point of the two-sided market approach, despite recognising the two-sided nature of calls to and from mobile phones.
- There is no welfare analysis to explain why having fewer mobile subscribers is beneficial.
- It does not take account of the effect of countervailing market power on Vodafone's termination rates.

Prices on one side of a two-sided market may not track costs on that side

35. As we pointed out in our submission (para 59), an insight of the two-sided market definition literature is that prices on one side of a two-sided market need not track costs on that side of the market. We would expect prices to be broadly cost-reflective when both sides of the market are taken together.

36. Cave and Valletti recognise that mobile calls are two-sided in nature (para 11), but still maintain that prices for FTM callers will be too high, and those for mobile subscribers too low. In our view, a price differential is simply a result of the fact that there is a two-sided market in operation in the case of mobile termination.

37. The two-sided market literature points out that welfare is in fact improved by an asymmetric pricing structure. An efficient structure of fees will reflect the fact that fixed-line callers care more about being able to make calls to mobile subscribers than mobile subscribers care about receiving them.

Reducing the number of mobile subscribers may not enhance welfare

38. Cave and Valletti imply that any loss of welfare associated with having fewer mobile subscribers would be more than compensated for through lower FTM calling prices. This argument seems to us to be sensitive to two assumptions:

- There must be a high rate of passthrough from lower termination rates into lower retail prices – If termination rate reductions are pocketed by

fixed line operators, only the clearly negative effect of having fewer mobile subscribers will remain.

- There must be a relatively low value associated with calls to those mobile users who give up mobile subscription in the face of higher subscription rates – To see this, assume that fixed-line callers have the same willingness to pay for any minute of conversation with any mobile subscriber and that the passthrough rate is 100%. After regulation, it is less costly to call a mobile subscriber but there are fewer subscribers available to call. And since the mobile network makes no economic profit before or after the regulation, there is a direct proportional relationship between the costs saved when subscribers leave and the revenues foregone through lower termination rates.

  From the perspective of fixed-line callers, there is no reason to expect that the welfare gain from lower call prices exceeds the welfare loss from having a smaller pool of mobile subscribers available to call.

39. OFTEL's work in the UK showed that there were a very high number of marginal subscribers who could leave the network if subscription prices rose. The total number of marginal subscribers was estimated at around 12 million from a total subscriber base of just over 47 million.[1]

Countervailing market power constrains termination rates

40. Cave and Valletti consider and reject one possible competitive constraint on termination rates, the source of which is competition for mobile subscribers. To reach this conclusion they need to distinguish between the access mobile subscribers have to the network, and the access others have to the mobile subscriber. We think that this is a strained distinction at best, since both forms of access are obtained simultaneously when a subscriber is connected to a mobile network. Competition between operators for customers constrains termination rates, with higher termination rates generating more competition for customers.

41. In addition, Vodafone's termination rates are consistently under significant competitive pressure as a result of the countervailing market power of the fixed networks. As discussed in our submission at paras 71 to 81, these networks act as agents for the very customers that Cave and Valletti are seeking to advantage.

42. Termination rates are also affected by competition with fixed networks. As we said in our submission (para 87), competition between mobile and fixed networks is growing as we seek to encourage fixed-to-mobile substitution. This generates incentives for us to develop products that continue to reduce our own MTRs.

[1] Competition Commission (2003), paras 2.22 and 2.366.

43. These intra-network and inter-network constraints have resulted in significant reductions in termination rates in the past, and Vodafone expects this to continue.

Regulation to TSLRIC is not always welfare maximising

44. Cave and Valletti argue (from para 25) that:

> "both with and without the waterbed effect, the public welfare maximising termination charge is the incremental cost of termination."

45. There seems to be one error and one omission in the analysis that supports this argument.

46. The error is a critical but un-stated assumption which is that all mobile services could be priced at incremental cost. This can not be correct in the presence of common costs, which are a substantial component of the cost structure for mobile services. Because mark-ups above incremental cost are required to recover common costs, pricing termination at incremental cost will force networks to recover common costs from other services, namely subscription and outgoing call services: at least one of these services would need to be priced significantly above incremental cost for the network to break-even. Subject to a requirement to cover common costs, the economically efficient structure of prices is the one that involves a pattern of mark-ups over incremental cost that provides the greatest overall welfare.

47. The crucial omission from Cave and Valletti's analysis is the quantity (deadweight loss) effect arising from price changes in the market for mobile services. If there is no waterbed effect at all, and also if mobile customers do not care about the price of calls made to them, then cutting the earnings of the mobile network will have no impact on the welfare of mobile subscribers, as correctly shown in the "no waterbed" row of Cave and Valletti's Table 1a (after para 26). When there is a full waterbed effect, this is not the case. Mobile prices will rise but the consumer surplus loss to mobile subscribers exceeds the pure transfer (B) by the amount of the quantity (deadweight loss) effect. Cave and Valletti have omitted this effect and their analysis of the full waterbed case is therefore incomplete.

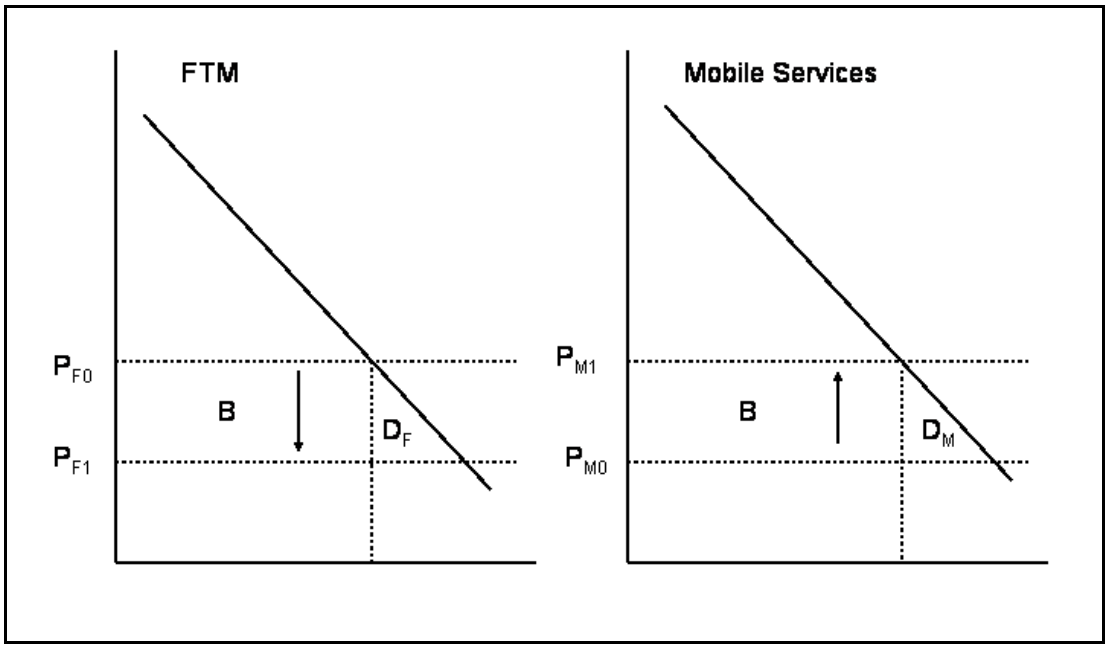
48. Figure 1 may help to explain the omission. It shows two stylised markets, one for fixed-to-mobile calls and the other for mobile services (encompassing subscriptions and calling). Assume there is a full waterbed effect, full pass-through, and the termination rate is cut. Cave and Valletti define the loss of mobile network surplus as a negative amount B. They observe that the gain to fixed-line consumer surplus is bigger than B because of the quantity effect represented in this diagram as the area of the triangle marked D_F. So on a public benefits basis, there is a net gain of D_F in the FTM market.[2]

[2] It should be apparent that Cave and Valletti's analysis also assumes that there are no costs associated with regulation.

49. Cave and Valletti then argue that, with a full waterbed effect, mobile networks are unaffected because they simply recover the lost B from the mobile sector as indicated in the right hand diagram. They also correctly observe that this harms mobile users by the amount B, but omit to count the deadweight loss triangle in this market, which is labelled D_M.

50. The reason Cave and Vallette exclude this deadweight loss is unclear. It may be because they believe mobile penetration is invariant to price noting, as they do, that mobile penetration is already 78.5%. However, even if there were little scope for mobile penetration to rise, there remains a risk that certain customers would churn off mobile networks if mobile service prices were to rise or, at least, reduce their usage levels by making fewer or shorter calls. Therefore, it is clear that on a public benefits basis, D_M is a cost of regulation arising in the mobile services market.

Figure 1: Effects of MTR regulation on welfare



51. It should be clear that the overall public benefit effect of regulating termination rates is equal to $D_F - D_M$. This benefit arises from a transfer of surplus between end-users (from mobile users to fixed users). It will be positive if $D_F > D_M$ and negative otherwise.

52. It is wrong to ignore D_M or (equivalently) assume it is zero. And this point applies even more strongly when externalities are considered. The effect of mobile subscription externalities can be understood in the context of the above diagram. As quantity reduces in the mobile market, the demand curve in the fixed-to-mobile market shifts back to the left because fixed users on average receive less surplus at any price for fixed-to-mobile calls. This reduces welfare in the market for fixed services, so D_F shrinks, possibly becoming negative.

53. For these reasons we think the argument of Cave and Valletti is too simplistic. The welfare maximising structure of mobile service prices depends on the

interplay between a range of demand-side factors, all of which need to be considered when selecting the pattern of (the inevitable) mark-ups over incremental cost. Theory alone cannot determine the optimal level of any one of the prices of the services of a mobile network.

There is no justification for MTM regulation

54. TUANZ argues that the Commission should regulate the termination rates that mobile networks charge each other. It expresses the view that (page 2):

> "artificially-high termination charges between mobile networks are used to boost mobile network profits margins and to distort prices to end-users."

55. We do not think that this view has any support in economic theory. It is now widely accepted among network economists that when firms compete using non-linear prices, any impact of a "high" linear termination rate can be competed away through other tariff components.

56. The only evidence TUANZ cites in support of its argument on MTM termination rates relates to the difference in price between on- and off-net calls from mobiles. The commercial rationale for such price differentials should be readily apparent: mobile networks are seeking to attract groups of users with relatively high within-group calling patterns. This is a discernable market segment, such as would be targeted by any rational seller.

57. In any case, there is no reason to think that the observed pattern of pricing is in any way related to termination rates. The strategy of price discrimination is unlikely to cease even if mobile-to-mobile termination rates were regulated since regulating mobile-to-mobile termination affects neither the incentive nor the ability to set lower prices for on-net calls. The Commission seemed to accept this point in para 333 of its Draft Report.

58. Any move towards the regulation of mobile-to-mobile termination rates would need to rely on a clear description of the market(s) in which efficient competition would be promoted as a result of regulation, plus an analysis of the competition impacts of regulation. We made the point in our submission that the Commission has not done the analysis required to support regulation of MTM termination (para 96).

V MTR regulation will not promote competition overall

MTR regulation may not lead to more competition for FTM calling

59. In our view there was nothing in any submission on the Draft Report that explained in detail why competition would suddenly become much more intense if MTRs were reduced by regulation.

60. As we pointed out in our submission, the Commission has identified that there are margins above cost being earned by operators in the FTM and toll calling market at present (para 240 and Figure 3). Competition does not seem to be reducing them. In fact, these margins have grown over time.

61. We can not see why cutting MTRs would generate more entry or more aggressive competition. And Telecom seems to agree with this position (paras 292 to 295). We do not think that an MTR price cut of around 10 cpm is likely to lead to a retail price cut of between 15 and 20 cpm as predicted by the Commission.

Regulating Vodafone MTRs looks like price control

62. TelstraClear seems to support our view that what the Commission is doing with MTR regulation is akin to price control. In para 177 it says "[t]he question of regulating mobile termination is essentially a matter of price control". It uses this analogy to argue that wealth transfers should be counted as a benefit of regulation.

63. We say that price control is not the purpose of the Telecommunciations Act. The purpose of the Telecommunications Act is the promotion of competition, and we can not see how competition will increase if MTRs are cut. If the Commission wishes to engage in price control, it should commence an investigation under the appropriate provisions of the Commerce Act.

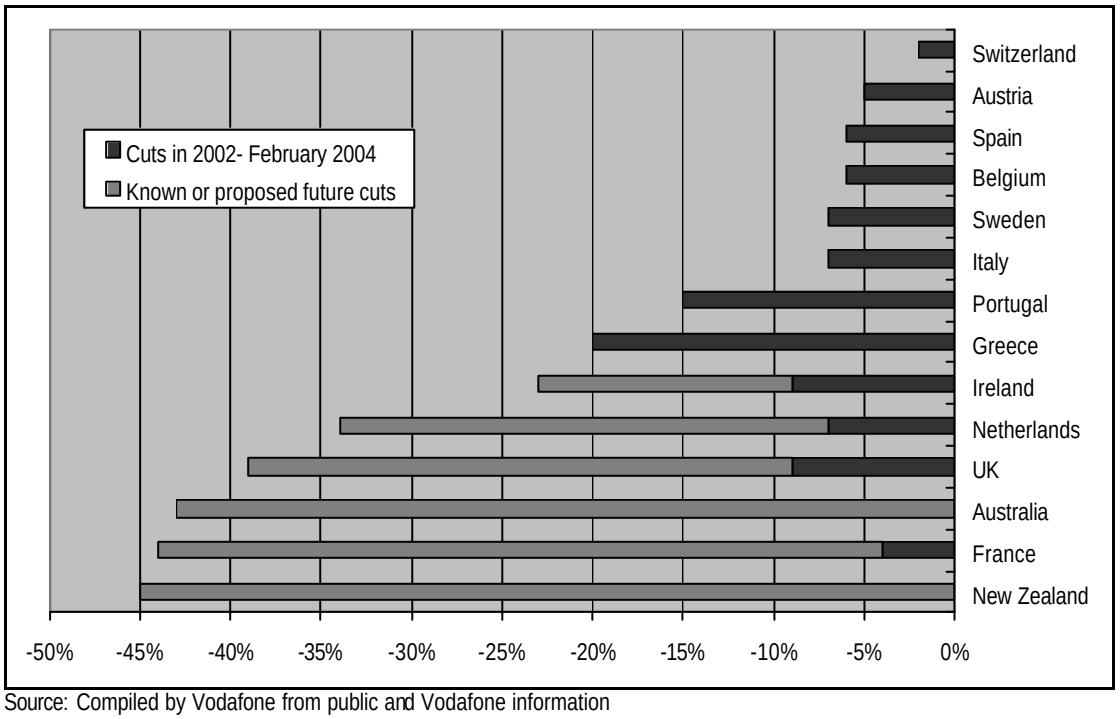
VI There is no precedent for a one-off cut in prices of this size

64. Telecom has submitted that regulated reductions in MTRs will result in higher prices or lower handset subsidies (paras 247 to 282). In our view this evidence supports our case that a one-off cut in prices is unacceptable. As we submitted (paras 270 to 273), a slower price cut will reduce the impact on mobile consumers by reducing the likelihood of any sharp nominal price changes.

65. Nowhere in the world can we find a regulator who has cut prices by 45% without a glidepath. Where there have been large cuts in MTR rates, they have been phased in over a period of years. Regulators in the UK, France and Australia all have proposed or have had 3 year glidepaths (although in the UK case, cuts happened simultaneously due to delays in implementation).

66. Most recently the French regulator ART decided to regulate reductions in MTR rates.[3] The two biggest operators face cuts of 16.3% on 1 January 2005, 24% on 1 January 2006, and a further reduction on 1 January 2007, with the level yet to be determined. ART has also mandated passthrough of price cuts into France Telecom's retail prices.

Figure 2: Proposed MTR cuts compared with cuts in some other countries



Source: Compiled by Vodafone from public and Vodafone information
Note that the UK proposed price cut actually took place in September 2004
Note also that the proposed price cut in France may be bigger than that indicated, since the price cut for 1 January 2007 has yet to be determined
The data underlying this graph is in Table 1

[3] See http://www.art-telecom.fr/communiques/pressrelease/2004/index-101204-2.htm

VII The benefits of regulation are overstated

67. TelstraClear argues that the Commission has understated the benefits of regulating MTRs. We outline below our concerns with the analysis of Marsden Jabobs Associates (MJA) for TelstraClear.

68. Given the ongoing debate about the welfare analysis in this case, with contributions from the Commission, Telecom, TelstraClear and Vodafone, the Commission might consider convening a specific workshop on the modelling issues.

69. TelstraClear argues that welfare transfers are a relevant benefit of regulation. The submissions from Telecom and the Business Roundtable instead support our view. We think that the Commission should use economic efficiency as its benchmark in the absence of a clear direction from Parliament to depart from this standard practice.

TelstraClear's welfare analysis is too optimistic

70. The alternative cost-benefit analysis conducted by MJA for TelstraClear uses the same model and factual scenarios as the Commission but makes a number of major changes to the counterfactual assumptions, the period of analysis, and some other aspects of the model. Collectively, these changes lead MJA to argue that consumer benefits are up to $972 million greater than those estimated by the Commission and public benefits are up to $244 million greater.

71. We think that the assumptions used by MJA are unreasonable. In particular:

- The passthrough definition is confused,
- The counterfactual assumptions are unreasonably pessimistic,
- The factual assumptions set the proposed regulated price too low, and
- The attribution of a terminal value has no justification.

72. We also have some other concerns that further reduce our confidence in the MJA results.

Passthrough definition is confused

73. A pervasive problem throughout the MJA analysis is confusion between instantaneous rates of passthrough and passthrough that occurs over a period of time (e.g., para 42 and paras 54 to 57).

74. The rate of passthrough is the rate at which the FTM price changes in response to changes in the MT rate. Formally, if *r* is the rate of passthrough then

$$r = \frac{P_1 - P_0}{T_1 - T_0}$$

where P_0 and T_0 are the initial FTM price and MT rate, and P_1 and T_1 are the new FTM price and MT rate.

75. In using rates of passthrough in analysis, care must be taken to ensure that the initial and new FTM price and MTR rate are consistent. It is inappropriate to calculate the passthrough rate based on prices and termination rates at different points in time and then apply this passthrough rate to prices and termination rates that are contemporaneous. This is because passthrough is a dynamic process that occurs over time as a result of strategic pricing and entry decisions of firms.

76. MJA has used the 65% passthrough rate calculated over the period from 1997 to 2004 as an instantaneous rate of passthrough in the construction of its counterfactual prices and its Factual 2 scenario. We believe that it is erroneous to use a rate of passthrough calculated over a seven year period as an instantaneous rate.

The counterfactual is unreasonably pessimistic

77. Much of the increase in net benefits estimated by MJA comes from its extremely pessimistic counterfactual assumptions about the mobile termination rate and the FTM price. Under the MJA counterfactual, the average FTM price decreases by 1.9% from the 2004 value of 42.21 cpm to 41.43 cpm in 2010 (paras 41 and 42).[4] This contrasts with a 19.6% decrease over the previous six years.[5]

78. MJA says that they derive their counterfactual prices by assuming (paras 41 and 42):

- that MTRs fall by 1 cpm per annum for 2005 and 2006 and remain constant thereafter, and
- that 65% of the annual decrease in the MTR is passed through into the FTM price.

79. MJA then calculates that this results in a decrease of the FTM price by 0.31% per annum from 2005 to 2010 (para 42).

80. The MJA counterfactual is too conservative. The assumption that MTRs will not fall after 2006 is not firmly founded in fact. From the Commission's data, it can be seen that the mobile termination rate has fallen every year since 1997 except for 2003.[6] MJA gives no compelling reason why this trend will not

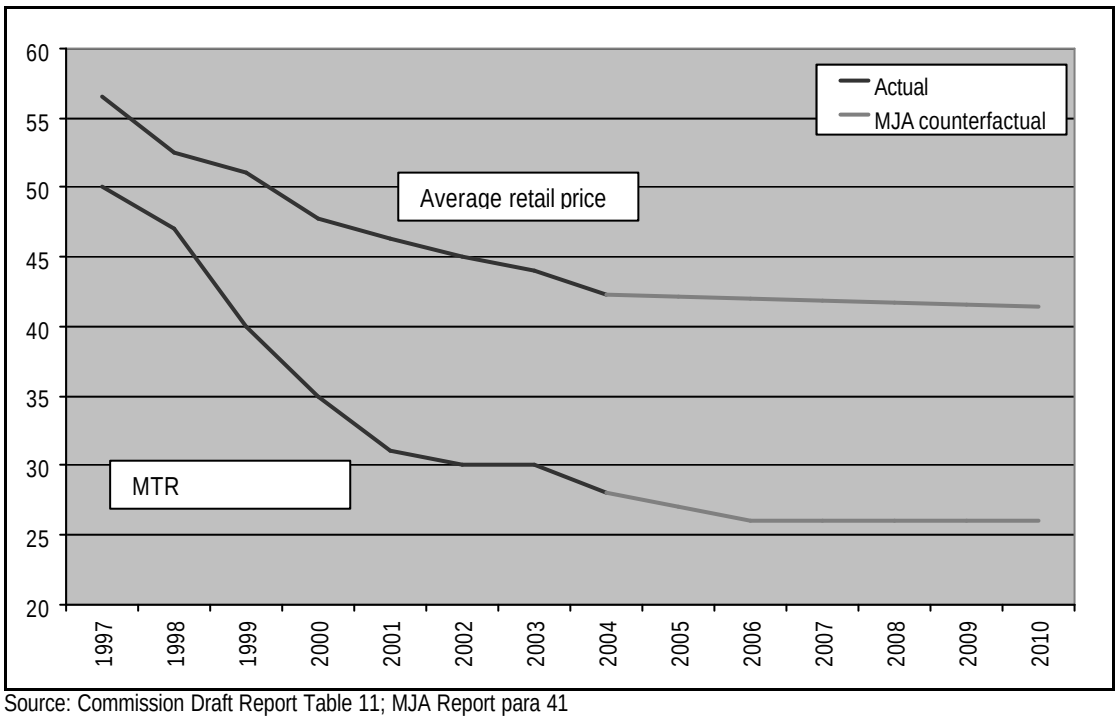
[4] These prices exclude MJA's adjustment for GST. We consider the appropriate treatment of GST further below.
[5] From 52.49 cpm in 1998 to 42.21 cpm in 2004.
[6] Draft Report, Table 11.

continue. As Vodafone has already submitted (para 318 and Table 3), we expect MTRs to continue to decline.

81. In any case, it is unclear how MJA estimates the annual rate of decline of the FTM price to be 0.31% per annum. If, as MJA assumes, there is an instantaneous rate of passthrough of 65%, then the FTM price should fall by 0.65 cpm in 2005 and in 2006 and thereafter remain constant. Even if the passthrough was assumed to occur gradually until 2010, the FTM price should fall by 0.65 * 2 = 1.3 cpm by 2010.

82. As the figure below shows, the counterfactual forecast of the MTR and the average retail FTM price that MJA uses in its analysis are simply not credible given the historic data. There is no reason to believe that from 2004 the MTR and FTM price will suddenly and dramatically reduce their historic rates of decline.

Figure 3: Actual MTR and average FTM prices compared with MJA counterfactuals



Source: Commission Draft Report Table 11; MJA Report para 41
The data underlying this graph is in Table 2

The factual price is too low

83. MJA has argued that the mobile termination cost in New Zealand is lower than the 16 cpm used by the Commission (paras 58 to 66). This is based on a Network Strategies report for TelstraClear that generates an estimate of the cost of mobile termination in New Zealand of 14.11 cpm. Network Strategies also presents alternative estimates ranging as low as 7.33 cpm, depending on assumptions about exchange rates and whether one chooses the 75th percentile, the median or the 25th percentile rate.

84. As we have explained in our submission (paras 326 to 367), we do not think the Commission's price comparison method is reliable. We have similar concerns with Network Strategies' update.

85. In fact, Network Strategies' work typifies why we do not think that price comparison is reasonable as an initial pricing principle for MTR regulation. The prices range from 5.21 cpm for South Korea, to 15.91 cpm for the UK. We have submitted that 20.5 cpm is a more reasonable estimate for Australia, given Vodafone Australia's recent cost modelling work. This is a wide range in the estimates of costs. And there is no particular reason to think that any of these numbers are actually likely to be reliable estimates of the costs of mobile termination in New Zealand, given the differences between countries, and the different methods by which and purposes for which the various numbers were created.

86. We continue to think that CPI-10 is a more sensible initial pricing principle. If MTRs are regulated, it will take us time to come up with reliable forward-looking cost estimates for our network. CPI-10 provides a relatively simple means to ensure that MTRs fall in the interim if that is what the Commission wishes to achieve. Requring passthrough as we propose will ensure that fixed-line operators do not pocket too much of the MTR price cut.

87. If the Commission does use price comparisons to estimate costs, we support the Commission's use of the 75th percentile. We think that this is a rough but reasonable way to recognise that there are risks if prices are cut to below costs that far outweigh the difficulties of setting the price too high.

88. MJA have argued that the median price should be used rather than the 75th quartile for a number of reasons (para 62):

    - The fact that it would "result in greater net benefits to end users" is not a valid reason for using the median, and reveals a bias in MJA's thinking towards producing large positive net benefit numbers. If all we are concerned about is generating greater estimates of net benefits to end users, a mobile termination cost of zero should be used. A cost/benefit analysis should not be conducted with the mindset of trying to produce the highest possible net benefit numbers. The object is to estimate the cost of mobile termination in New Zealand.

    - The fact that it would "reduce the gap between pre-control and competitive prices" is also not a valid reason for using the median. The Commission's problem is that it does not know the cost of termination, by assumption. So it can not tell whether a lower price is in fact reducing the gap, or setting the rate inefficiently low. The fact that the competitive price is not precisely struck results from difficulties with regulation and imperfect information, rather than the level of the MTR. As we said (paras 403 to 409 in our submission) the Commission uses a strange method of estimating indirect costs, but this can not be fixed by just choosing a lower termination rate.

The attribution of a terminal value is not helpful

89. MJA argues that the benefits of regulation will extend beyond 2010 and this should be incorporated in the cost-benefit analysis (paras 23 to 29). MJA believes that the benefits will extend to at least 2015 and models this by assuming that the net benefits fall to zero between 2010 and 2015.

90. This approach serves only to inflate any net benefit or cost and does not add any useful information to the Commission's decision-making process. It does nothing to help inform the Commission whether or not regulation is desirable.

91. If regulation generated net costs (which we think it does), using the terminal value approach would just make those negative numbers larger. It would not help decide whether the initial estimates of net costs was appropriate.

92. Indeed, this approach only introduces more room for argument about whether the calculation of residual benefits or costs after 2010 is reliable. We think that the way MJA calculates the impacts from 2010 to 2015 makes no attempt to sensibly model the counterfactual and factual over this period.

Other issues reduce our confidence in the MJA work

It suffers from the same flaws as the Commission's work

93. As the MJA model is based directly on the Commission's work, it suffers from the problems identified in our submission on the Draft Report (for a summary see para 288). These include that the assumptions of constant elasticity and linear demand are inconsistent with one another, that indirect costs are calculated incorrectly, that the model uses unrealistically high assumptions for passthrough, and that the Commission's modelling of FTM demand is too simplistic and does not make the best use of the available data.

The direct cost figure has no support

94. MJA has argued that the direct costs estimate that the Commission uses is 57% higher than it should be (paras 102 to 110).

95. It is a simple matter for the Commission to resolve this empirical issue. It could ask the parties what they have spent on external advisors, ask them to estimate the internal staff costs involved, and ask for estimates of what would be spent in the future on MTR regulation and litigation. The Commission knows its own costs and has been involved in enough of these processes to conclude what its future costs will be.

Modelling growth of FTM calls is arbitrary

96. MJA incorporates what they call "organic" growth of FTM calls due to increases in the mobile penetration rate. This corresponds to an outward shift of the FTM demand curve over time. We believe this is an important feature of the FTM market and Covec also estimated such an effect in its econometric model.

97. The way that the effect is estimated by MJA is ad-hoc and non-robust (paras 48 and 49). MJA does not attempt to rigorously separate the price effect from the "organic" growth effect through a formal regression or statistical analysis, and instead it relies on casual observations from the data.

Treatment of GST is incomplete

98. MJA has argued that the Commission has incorrectly treated GST in its model, and by doing so has underestimated the net benefits (paras 133 to 136).

99. It is not clear whether or not the Commission's historic prices in the Draft Report include GST. These prices are stated as being calculated from data on industry revenues and total FTM minutes (table 11), but it is not stated whether the industry revenue includes GST.

100. In the Commission's spreadsheets prices are given separately for Business and Consumer segments, and these are used to calculate a combined average price. Business FTM calls will not be affected by GST since any tax paid is returned as a credit. Consumer call demand presumably will be affected by GST, but MJA has modelled GST by increasing all of the counterfactual and factual prices by 12.5%, which does not account for this separation. It is therefore likely that MJA has overestimated the impact of GST.

101. In addition, under the public benefits approach a proper treatment of GST would require the calculation of total GST revenue that the government receives from FTM calling as part of total welfare. It is possible that there would be a loss of GST revenue under the factual compared to the counterfactual if the factual price is low enough, and depending on what happens to the resources that are no longer expended on FTM calling. MJA does not incorporate this in their model.

102. Overall, it is not clear to us that consideration of GST adds anything but complexity to the decision process.

Discount rate should remain 6%

103. MJA has argued that a 4% discount rate is more appropriate than the 6% that the Commission used, as consumer benefits should be discounted using a post-tax discount rate (paras 137 to 143). This is a valid point for consumer benefits, but public benefits should not be discounted using a post-tax rate. MJA appears to have used 4% for both consumer benefits and public benefits (e.g., Table 12).

104. In addition, the discount rate should incorporate an element that accounts for the marginal utility of income and growth in income over time.[7] This is because if income grows over time, the marginal utility of future income is lower than that of present income. MJA has not incorporated this additional factor in their discount rate calculation.

[7] See http://greenbook.treasury.gov.uk/annex06.htm.

105. We think that 6% remains an acceptable estimate of the discount rate.

Productive efficiency gains have no basis in fact

106. MJA claims that an allowance should be made for additional productive efficiency in the FTM market if mobile termination regulation increases the intensity of competition in this market and this drives firms to be more productively efficient (paras 147 to 158).

107. As MJA acknowledges (para 151), for this to occur requires existing FTM firms to be productively inefficient. There is simply no evidence that this is the case. Since all firms will face the same MTR and have the same fixed origination cost, one FTM firm can only be more productively efficient relative to another if it has lower FTM retailing or transport costs. This potential source of productive efficiency exists regardless of whether MTRs are regulated, and is unaffected by regulation.

108. Therefore we do not agree with MJA's claim (para 154) that regulation of MTRs can promote entry by more efficient entrants. Such entry, if it were viable, would occur even in the absence of regulation.

109. We believe that the Commission should not account for any increase in productive efficiency as a result of any MTR regulation.

Transfers are not relevant benefits

110. Many complex legal arguments have been put about whether wealth transfers from producers to consumers should be counted as benefits or not. Vodafone (paras 368 to 385) and Telecom (paras 52 to 89) have suggested that they should not be. TelstraClear is convinced they should be (paras 166 to 196), in part repeating some of the arguments the Commission makes in its Draft Report.

111. We think that if Parliament intended to depart from the normal practice then clear words would have been used. We think normal practice for the Commission under the Commerce Act is not to count transfers to consumers as benefits. And we think the purpose statement in section 1A of the Commerce Act is equivalent to that in section 18 of the Telecommunications Act. So that normal practice under the Telecommunications Act should be not to count wealth transfers from producers to consumers as benefits.

112. We do not think that there is clear guidance from the wording of the Telecommunications Act that the Commission should count transfers to consumers as benefits. The case for counting transfers as benefits rests on complex constructions of the Telecommunications Act and particularly on the attribution of meaning to Section 18 based on the wording of either Schedule 1, or on various parts of the Commerce Act.

- We say the Commission errs in law to the extent that it uses the Schedule 1 rejection of Baumoll-Willig as guidance on the principles to follow in a Schedule 3 investigation.

- We argue that the price control provisions of the Commerce Act are not a relevant analogy. The Telecommunications Act is about promoting competition, not about price control per se.

- We maintain that the Commission is taking an approach to MTR regulation based on price control, but that this approach is mistaken in law.

113. Even leaving aside all the legal arguments and economic principles, counting transfers as benefits leads to complex issues of incidence that the Commission is not well placed to resolve.

114. Since passthrough is higher for business FTM callers than residential end-users most of the benefits from lower MTRs will go to businesses. Whether those price reductions then flow on to final consumers depends on competition in each of the sectors in which those businesses operate. The ultimate beneficiaries are very uncertain.

115. If one accepts that there will be an impact on mobile consumers, as both Telecom and Vodafone have submitted, then a major impact of MTR regulation will in fact be to transfer resources from mobile consumers to business FTM callers. It is unclear on a distributional approach whether this is desirable or not.

It does not matter if shareholders are overseas

116. TelstraClear argues that wealth transfers from overseas shareholders should be counted as benefits even under the public welfare test (para 192). We reject this argument on principle, in law, and in practice.

117. We disagree with this argument on principle. It implies that foreign-owned companies are more likely to be regulated than locally-owned companies. It is not clear that this has anything to do with economics, or with any detriments from alleged monopolisation. But it is clear that this sends rather discouraging signals to investors and this is a risky position for a country and an industry so dependent on foreign investment.

118. We disagree that this approach is supported in law. TelstraClear has quoted the High Court slightly out of context. When the full quote is presented, the TelstraClear extract is quite misleading. The full extract of the relevant statement of the Court said:[8]

> "…We reject any view that profits earned by overseas investment in this country are necessarily to be regarded as a drain on New Zealand. New Zealand seeks to be a member of a liberal multilateral trading and

[8] *Telecom Corporation of New Zealand Ltd v Commerce Commission* (1991) 4 TCLR 473, 531.

investment community. Consistent with this stance, we observe that improvements in international efficiency create gains from trade and investment which, from a long-run perspective, benefit the New Zealand public.

On the other hand, **if there are circumstances in which the exercise of market power gives rise to functionless monopoly rents, supra-normal profits that arise neither from cost savings nor from innovation, and which accrue to overseas shareholders, we think it right to regard these an an exploitation of the New Zealand community and to be counted as a detriment to the New Zealand public**." (*emphasis shows the TelstraClear extract*)

119. The Court in fact noted that benefits accruing to overseas shareholders could result in benefits to the New Zealand public.

120. In practice TelstraClear's argument is also untenable.

- It will be very difficult for the Commission to assess whether any above cost pricing amounts to a "functionless monopoly rent". Certainly pricing above some estimate of costs is not an indication of monopoly power on its own.

- The extent to which profits are repatriated to overseas shareholders will affect the justification for regulation. This will vary over time and by firm. If overseas shareholders reinvest their earnings in New Zealand then a reduction in their profits could not count as a benefit to New Zealand consumers.

- This position also leads to difficulties in the justification for regulation if ownership in the industry changes. For example, the Commission would not count reductions in profits to our network as benefits if it were fully owned by New Zealanders, but the moment an overseas-owned firm like Vodafone bought those assets, the argument for regulation would be strengthened.

- Similarly, Telecom, Vodafone and Telstra are all publicly listed, albeit not all in New Zealand. So movements in shareholdings could affect the justification for regulating. These movements could be affected by decisions totally unrelated to regulation and totally out of the Commission's control. This would include, for example, decisions about the way Vodafone chooses to run its share ownership programme for staff.

121. Given the complexities and distortions associated with the use of distributional analysis, we suggest the Commission stick with the standard position in economics that a dollar is a dollar regardless of who holds it, and that the Commission use economic efficiency as the standard for assessing costs and benefits. A clear statement on this issue from the Commission would save us all significant further dispute.

VIII There are dynamic efficiency risks from this regulation

122. We respond below to TelstraClear's arguments that 3G should be regulated because:

    - 3G is no different to 2G and the same competition problems will arise,
    - the investment in 3G is relatively small and low risk anyway,
    - there will be no impact on investment incentives from 3G regulation, and
    - there will be practical difficulties with enforcing regulation of 2G if 3G is not covered.

123. We also support Vector's submission that the Commission should endeavour to quantify the impacts on dynamic efficiency of MTR regulation.

3G termination regulation is likely to be in the same market in the future

124. We think that 3G termination is likely to be seen as in the same market as 2G termination once the service is more mature.

125. In our view this means that, if the Commission continues with its operator specific market for termination on each network, regulation of 3G termination is inevitable at some point in the future if prices are higher than the Commission's estimate of costs.

126. TelstraClear argues that there are problems with 2G termination and that the same problems will exist with high 3G termination prices and either lower subscription prices (and higher penetration) or higher profits for operators.

127. We agree that this is one possible outcome. There are others, for example the market conditions that are forcing down MTRs may continue to do so, and regulation of 3G termination may turn out never to be necessary.

128. But in either case it is too soon to tell at this point.

Investment in 3G is not low risk

129. TelstraClear argues that 3G is just a network upgrade from 2G that presents very low risk, especially since existing 2G customers can be easily migrated to the 3G network (paras 57 to 76).

130. We find this position surprising. TelstraClear must have realised from its investigation of a WCDMA network build that investment in 3G is not low risk. Nor is it some trivial network upgrade. We are building an entirely new core

network and an entirely new radio access network. The cost of our investment is measured in the hundreds of millions of dollars.

131. Of course, the size of investment is only one side of the risk position. What makes this investment still more risky is the uncertainty around revenues. The 3G network will deliver enormous increases in capacity on our network. We will need to inspire increases in usage by our customers to take up that capacity so that we can start to earn a return on our investment, even if we can convince our existing customers to move their existing traffic to the 3G network. 3G services are generally unproven around the world. So this increase in usage is very far from assured.

132. TelstraClear notes (para 62) that Telecom's EV-DO investment is around $40 million, according to public reports. With the greatest of respect to our fellow infrastructure investor, this is only part of the investment required to actually deliver a full range of 3G services. The "DO" part of the name stands for "Data Only": EV-DO is not for 3G voice calling and Telecom will face ongoing investment demands to ensure it can offer 3G services to the mass consumer market.

133. Some analysts believe that Telecom may have to commit six or seven hundred million dollars to build a UMTS network within the next few years.[9] The risk of 3G termination regulation must affect the business case for building that network, especially the risk that a regulated termination rate will not allow a return sufficient to compensate for the risk that the investment is a failure.

There will be an impact on investment incentives

134. TelstraClear says that there is no evidence from any country that the timing and scale of our 3G rollout would be affected by regulation of 3G termination. It argues on this basis that the Commission's concerns that 3G investment could be affected are unfounded. TelstraClear suggests that our investment plans appear to be indifferent to the actual or possible imposition of regulation (para 86).

135. We do not want to be in the position of threatening impacts on 3G investments from MTR regulation. Clearly we are investing in 3G because our customers and competition with Telecom requires it. We do not want to lose our customers because we can not compete, and we hope it will generate a return for us along the way.

136. Our point is that the Commission is not taking sufficient notice of the fact that its arguments about regulating 2G will limit the enthusiasm for investing in infrastructure. We have pointed out in our submission (para 436) that those impacts could easily be very much larger than its estimated static efficiency benefits from regulating.

137. Consistent with that, we have not argued specifically that our 3G rollout would be impacted (although we do not say it will not be). We say that there are

[9] Goldman Sachs JB Were (2004).

good reasons to forebear from regulating 3G now because of the risk of preventing firms from recovering investment costs in infrastructure investment.

138. We are arguing for a consistency of approach to stop regulators from imposing a regulatory bias on rates. The risk is that once 3G is cheaper than 2G the Commission will move to regulate rates at the lower 3G rate, and this means that we will never have the opportunity to recover our higher costs in the early years or a return appropriately weighted for the risk that the investment may not work out.

Practical problems are not a justification for regulating MTRs

139. TUANZ (page 2), TelstraClear (paras 92 to 96) and others say that 3G should be regulated because otherwise there will be practical problems with operators able to move traffic to the 3G network to avoid the regulated price.

140. In our view this is not a justification for regulation of 3G. Legally the Commission needs to consider the relative efficiencies of regulating and not regulating in order to determine whether it would regulating 3G termination would promote competition for the long-term interests of end-users.

141. The Commission's normal approach would require it to determine prices, costs and volumes under a factual and counterfactual over the next five years to determine the benefits of regulation. These all represent unknowns. There are no customers being disadvantaged by Vodafone's 3G pricing. So there are no benefits from regulating. This only leaves the costs of regulating to be considered. It can not be in the long-term interests of end-users to regulate something that is not even in existence yet.

142. In paras 109 and 110 TelstraClear seems to say that regulating 2G alone is very difficult or impossible. We find this surprising. There seem to be countries that regulate 2G without regulating 3G: the UK is specifically listed by TelstraClear in Table 8.1.4. Telstra clearly thinks that 2G and 3G regulation can be separated as well, as we point out in Appendix 2.

143. If it turns out to be impossible for the Commission to regulate 2G without regulating 3G despite the experience of other countries, then the Commission can always come back and regulate 3G later on once it is better established. We say that there can not be a case for regulating 3G yet.

The Commission should quantify the impact on dynamic efficiency

144. We support Vector's view (paras 16 to 18) that the Commission should attempt to quantify the impact on dynamic efficiency of this regulation. While we accept that this will be difficult and contentious, it is also the only way to generate a reasonable basis for comparison between the dynamic and static benefits and detriments of regulation.

145. We have attempted this ourselves in a simple way in our submission (para 436) because we think that this usefully reveals that the size of changes to dynamic efficiency far outweigh any static efficiency effects of MTR regulation.

IX Service specification

146. TelstraClear has made submissions on the detail of the service specification (para 148). We disagree with its presentation and present below our preferred service specification.

147. We also respond to the Telecom comment that the Commission cannot impose retail price control (para 123), to TelstraClear's argument that any regulation should be backdated (para 140), and to TelstraClear's suggestion that access seekers should have the opportunity to review any cost model that an access provider develops (para 131).

Summary of proposed service specification

148. We have made a number of arguments about appropriate features of any MTR regulation that the Commission is inclined to impose. Our proposed service specification brings together these arguments. Our proposed service specification has five main features:

- A three-year glidepath for MTR rates – The current proposal for a one-off cut is risky. We suggest the Commission follow other regulators and move towards whatever the cost-based price is over time.

- No coverage of mobile to mobile termination – The work has not been done to show any benefits from regulating MTM termination rates. The service specification does not cover calls from mobile numbers.

- No coverage of 3G – We support the Commission's draft recommendation that regulation should not cover termination on 3G networks given the newness of the service, and the risk of impacts to investment incentives.

- CPI-10 as an initial pricing principle – We do not believe that the Commission's cost-based price comparisons can generate a reliable estimate of the costs of mobile termination in New Zealand. CPI-10 will ensure price cuts while allowing time for access providers to develop the cost models required under the final TSLRIC+ pricing principle.

- Passthrough requirement – We do not think the Commission can reasonably expect increases in competition from MTR reductions without requiring passthrough.

There is more detail on our proposed specification in Appendix 1.

Passthrough conditions are not retail price control

149. We agree with Telecom's statement that the Commission has no role to regulate retail prices under the Telecommunications Act (para 123).

150. But if Telecom is suggesting that the Commission can not provide for passthrough conditions on access seekers before they can access the regulated termination price, we consider that Telecom's view is misguided.

151. The Commission is perfectly able to impose requirements that savings be passed through to end-users as part of the initial and final pricing principles. The pricing principles are in effect formulas for determining the price the access seeker has to pay.

152. This is not the same as regulating retail prices. It is simply requiring that in order to gain access to regulated rates, an access seeker must demonstrate that the benefits will indeed accrue to end-users, in line with the purpose in section 18 of the Telecommunications Act.

Determinations can not be backdated

153. TelstraClear says that the Commission should include as a condition of the potential designated service that the first determination of the mobile termination price will take effect from the date at which the service was designated (para 140). This proposes "back-dating" or giving retrospective effect to the determination given by the Commission.

154. Vodafone says that giving retrospective effect to a determination would be inconsistent with the text and the purpose of the Telecommunications Act, and unlawful. The Commission does not have the ability to back-date its determinations under section 27 of the Telecommunications Act.

155. In the absence of any express indication otherwise there is a presumption that no statute will have retrospective effect.[10] This presumption extends to regulatory determinations given by the Commission under the Telecommunications Act.

156. Although our glide paths (or adjustment paths) commence on the date the service comes into effect, this is not the same as back-dating as the access seeker only gets on the glide path from the date their relevant determination comes into effect.

Access seekers should not have access to cost model inputs

157. TelstraClear argues that requiring an access provider to develop its own cost model can help the process of developing reliable cost estimates (para 131). We agree. TelstraClear goes on to say:

> "By providing the Commission with its own model, the access provider has to provide a complete view of the relevant costs, laying out in detail its assumptions and data for review by the Commission and access seekers."

[10] Interpretation Act 1999, section 7.

158. We reject in the strongest possible terms any suggestion that TelstraClear or any other access seeker should be able to use regulatory processes to secure access to any sensitive Vodafone data. Our concern is particularly acute for the kind of sensitive commercial data that will doubtless form the inputs into cost modelling, and especially because this would inevitably involve staff performing commercial functions for our competitors who could never have a legitimate reason for access to the data in the normal course of events.

159. The TSO costing process in sections 83 and 84 of the Act provides a useful alternative. An access provider could do its own cost modelling in accordance with instructions from the Commission and provide a report from an auditor that the data provided complies with the Commission's instructions. There is no justification at all, in our view, for imperilling Vodafone's commercial interests so that access seekers can trawl through sensitive data for their own financial gain.

160. Given the widely-recognised difficulties with the Commission's existing systems for protecting confidentiality, we would be seriously concerned about any move to require an access provider to disclose any commercially sensitive information more widely than to the Commission itself.

X References

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XI Data used in figures

Table 1: Proposed MTR reductions compared with changes in some other countries

	2002 to February 2004	Known or proposed future cuts
New Zealand		-45%
France	-4%	-40%
Australia		-43%
UK	-9%	-30%
Netherlands	-7%	-27%
Ireland	-9%	-14%
Greece	-20%	
Portugal	-15%	
Italy	-7%	
Sweden	-7%	
Belgium	-6%	
Spain	-6%	
Austria	-5%	
Switzerland	-2%	

Source: Compiled by Vodafone from public and Vodafone information
Note that the UK proposed price cut actually took place in September 2004

Table 2: Historical MTR and average FTM rates versus MJA counterfactual

Year	MTR		Average retail FTM price	
	Actual	MJA CF	Commission	MJA CF
1997	50.00		56.52	
1998	47.00		52.49	
1999	40.00		51.05	
2000	35.00		47.71	
2001	31.00		46.35	
2002	30.00		44.96	
2003	30.00		43.99	
2004	28.00	28.00	42.21	42.21
2005		27.00		42.08
2006		26.00		41.95
2007		26.00		41.82
2008		26.00		41.69
2009		26.00		41.56
2010		26.00		41.43

Source: Commission Draft Report Table 11; MJA Report para 41

Table 3: Indicative impact of proposed Initial Pricing Principle (CPI-10%) with passthrough

	2005	2006	2007	2008	2009	2010
MTR (cpm)	42.00	38.43	35.16	32.17	29.44	29.44
Average retail price (cpm)	26.00	23.79	21.77	19.92	18.22	18.22

Source: Vodafone calculations

Table 4: Indicative impact of proposed Final Pricing Principle (TSLRIC+) with passthrough

	2005	2006	2007	2008	2009	2010
MTR (cpm)	26	23.5	21	18.5	16	16
Average retail price (cpm)	42	37	32	27	22	22

Source: Vodafone calculations

XII Appendix 1 – Detail on service specification

Proposed service specification

Table 5: Proposed service specification

Description of service:	Termination (and its associated functions) of voice calls to mobile telephone numbers (other than calls from mobile telephone numbers) on a cellular mobile telephone network (which must not be a third generation cellular telephone network providing voice services) ("2G voice calls")
Conditions:	Nil.
Access provider:	A person who operates a cellular mobile telephone network.
Access seeker:	Any person who – (a) operates a PSTN; and (b) 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:	Price determined from the date the determination takes effect by reference to an adjustment path, where the adjustment path begins on the date on which the service comes into force (the "commencement date") and reduces in four steps on the commencement date and on subsequent anniversaries of the commencement date by an amount calculated in accordance with the following formula: a * (CPI-X) where- a is the weighted average price at which the service was being supplied by the access provider to third parties at the commencement date or at the relevant anniversary of the commencement date, as applicable CPI is the rate of inflation as measured by the Consumer Price Index for the one-year period up to the commencement date, or up to the relevant anniversary of the commencement date, as applicable X is 10 per cent

	provided that the price will only reduce on the relevant anniversary if the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network has reduced, over the course of the 12-month period (or period from the date the determination takes effect, if shorter) up to that anniversary, by an amount that is equal to (or greater than) the percentage reduction in the price of the service pursuant to the above CPI-X formula for that period.
Final pricing principle:	Price determined from the date the determination takes effect by reference to an adjustment path to a TSLRIC + rate, where the adjustment path begins on the commencement date and reduces in four steps on the commencement date and on subsequent anniversaries of the commencement date by an equal amount calculated in accordance with the following formula: $\frac{a-b}{4}$ where – a is the weighted average price at which the service was being supplied by the access provider to third parties at the commencement date b is the price calculated on the basis of TSLRIC+ provided that the price will only reduce on the relevant anniversary if the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network has reduced, over the course of the 12-month period (or period from the date the pricing review determination takes effect, if shorter) up to that anniversary, to the target weighted average retail price (or lower) for that period. The target weighted average retail price will be determined by reference to an adjustment path to a target retail price, where the adjustment path begins on the commencement date and reduces in four steps on the commencement date and on subsequent anniversaries of the commencement date by an equal amount calculated in accordance with the following formula: $\frac{c-d}{4}$

	where – c is the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network at the commencement date d is the target retail price, comprising the sum of the price referred to in b above and the cost of originating 2G voice calls on the access seeker's PSTN (including transport and retail-related costs)
Requirement referred to in section 45 for final pricing principle:	Subject to the following sentence, the Commission must, by notice in writing, require the access provider to calculate the price payable for the service in accordance with the final pricing principle and any regulations relating to that principle not later than the time specified in the notice. The access provider will not be required to calculate the target weighted average retail price or the access seeker's weighted average retail price, which will be calculated by the Commission.
Additional matters that must be considered regarding application of section 18:	In applying the initial pricing principle and final pricing principle, the Commission must consider incentives for cellular mobile telephone network operators to provide retail services that compete with retail services provided over fixed telephone networks.

Details on specification

Description of service

Vodafone has sought to restrict the description of the service to the termination of voice calls to mobile telephone numbers (as well as excluding calls from mobile telephone numbers). Calls terminating to other number ranges used on mobile telephone networks (e.g., local numbers), which will have quite different interconnection pricing models, should not be included in the regulated service.

Conditions

161. Vodafone has not proposed that any conditions should apply to access to the mobile termination service.

Access seeker

162. Vodafone's description of an access seeker allows a cellular mobile telephone network operator that has a service that enables the origination of calls from local numbers, and competes with retail services provided over fixed telephone networks, to take advantage of regulated reductions in the price of

the mobile termination service in relation to voice calls to other cellular mobile telephone networks. Calls from mobile telephone numbers are expressly excluded under Vodafone's proposed description of the service.

Initial pricing principle

163. The initial pricing principle proposed by Vodafone provides for the determination of a price for the service by reference to an adjustment path, which commences on the date on which the service comes into force (the "commencement date").

164. Under the adjustment path, the price of the service reduces in four steps on the commencement date and on subsequent anniversaries of the commencement date by a percentage calculated on the basis of CPI – 10%.

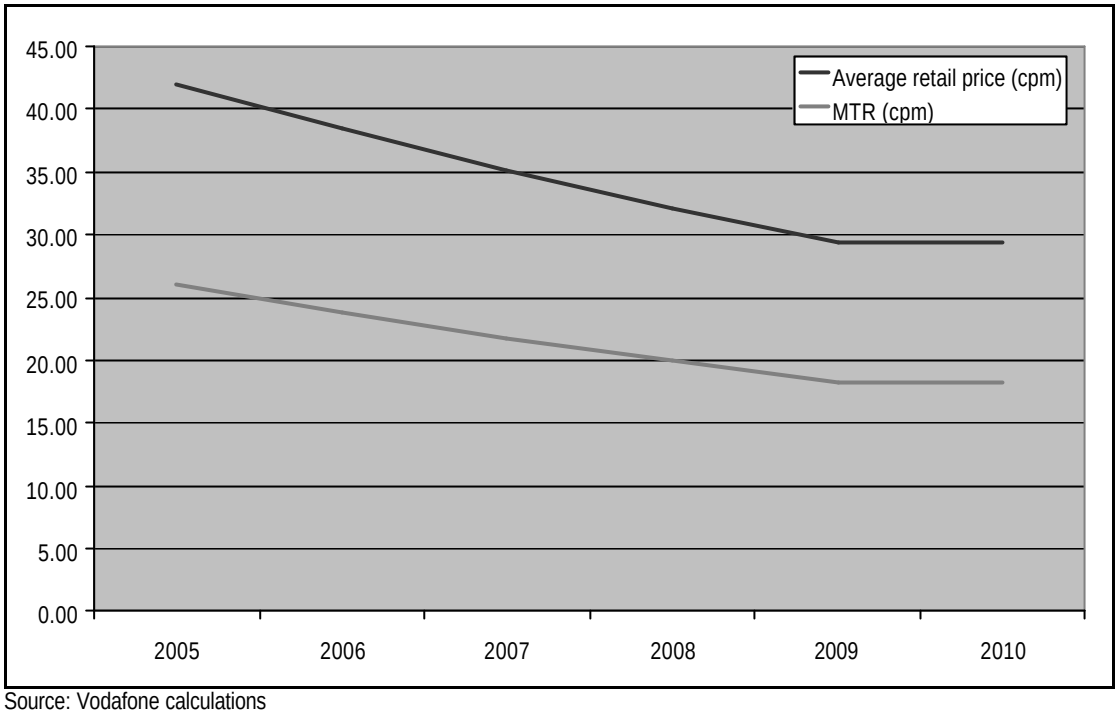
165. After the initial reduction in the price of the service from the date the determination takes effect, further reductions will depend on whether or not the access seeker has reduced its weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network over the course of the period up to the relevant anniversary date by an amount equal to (or greater than) the percentage reduction in the price of the service for the same period.

166. For example, assuming:

- the weighted average price at which the service was being supplied by the access provider to third parties at the commencement date is 26 cpm,
- the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network on the commencement date is 42 cpm,
- CPI is 1.5% for the one-year period prior to the commencement date and for each subsequent one-year period, and
- the access seeker reduces its weighted average retail price by an amount equal to the percentage reduction in the price of the service during the period up to the relevant anniversary date,

the adjustment path would be as follows:

Figure 4: Indicative impact of proposed Initial Pricing Principle



Source: Vodafone calculations
The data underlying this graph is in Table 3

Final pricing principle

167. The final pricing principle proposed by Vodafone provides for the determination of a price for the service by reference to an adjustment path to a TSLRIC+ rate.

168. Under the adjustment path, the price of the service reduces in four steps on the commencement date and on subsequent anniversaries of the commencement date by an equal amount so that the TSLRIC+ rate may apply as early as from the third anniversary of the commencement date.

169. After the initial reduction in the price of the service from the date the determination takes effect, further reductions on subsequent anniversaries of the commencement date will depend on whether or not the access seeker has reduced its weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network over the course of the relevant period to the access seeker's target weighted average retail price (or lower) for that period.

170. The target weighted average retail price is determined (from the date on which a pricing review determination takes effect) by reference to an adjustment path to a target retail price, which is the sum of the TSLRIC+ rate and the cost of originating 2G voice calls on the access seeker's PSTN. The pricing review determination will not have any retrospective effect in determining an access seeker's target weighted average retail price for any period up to the date on which that determination takes effect.

171. Under the adjustment path, the access seeker's weighted average retail price reduces in four steps on the commencement date and on subsequent

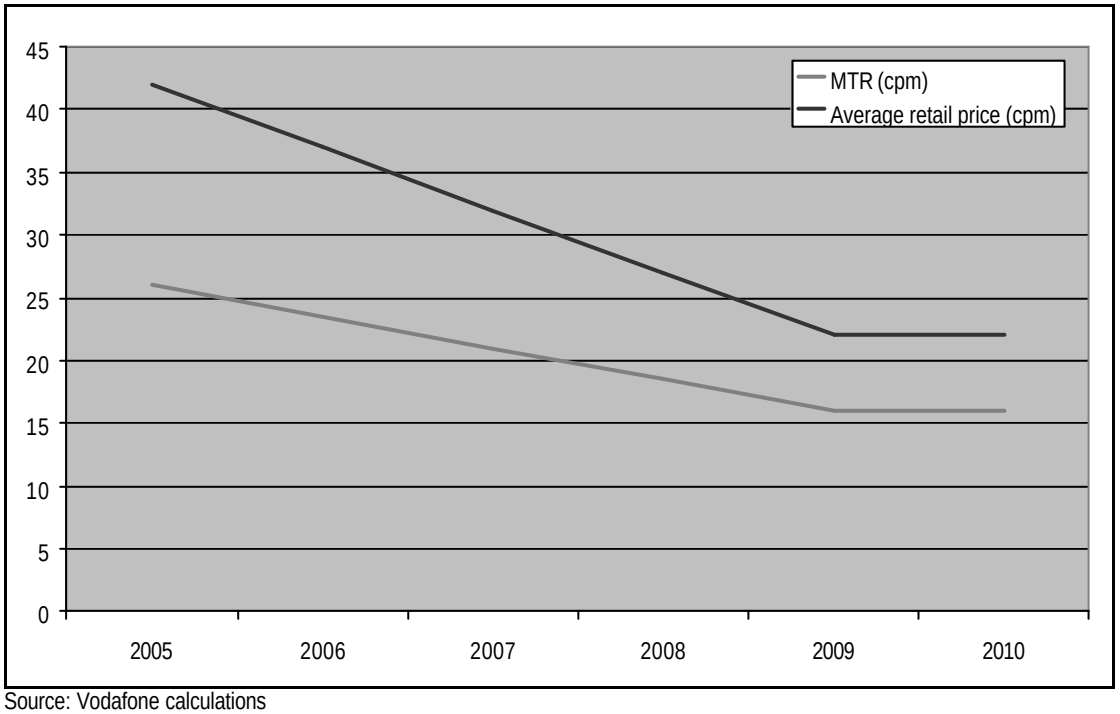
anniversaries of the commencement date by an equal amount so that the target retail price may apply as early as from the third anniversary of the commencement date.

172. For example, assuming:

- the weighted average price at which the mobile termination service was being supplied by the access provider to third parties at the commencement date to be 26 cpm;
- the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network on the commencement date to be 42 cpm;
- the TSLRIC+ rate is determined to be 16 cpm and the cost of originating 2G voice calls on the access seeker's PSTN is determined to be 6 cpm; and
- the access seeker reduces its weighted average retail price over the course of a period up to a relevant anniversary date to the target weighted average retail price for that period,

the adjustment path would be as follows:

Figure 5: Indicative impact of proposed Final Pricing Principle



Source: Vodafone calculations
The data underlying this graph is in Table 4

173. Both the initial and final pricing principles proposed by Vodafone would require the Commission to assess at the commencement date the weighted average price at which the service was being supplied by the access provider to third

parties and the access seeker's weighted average retail price for 2G voice calls to the access provider's cellular mobile telephone network. The Commission would also need to calculate, on the relevant anniversaries of the commencement date, the access seeker's weighted average retail price for 2G voice calls over the course of the 12-month period (or period from the date the determination or pricing review determination takes effect) up to that anniversary.

174. The Commission would also need to consider the implications if the access seeker failed to reduce its weighted average retail price over the course of a relevant period by an amount equal to (or greater than) the percentage reduction in the price of the service for that period, under the initial pricing principle, or to the target weighted average retail price for that period, under the final pricing principle. Vodafone would be happy to provide the Commission with its further views on this matter at the conference or at any other time. This detail could be included in associated regulations.

Additional matters

175. Vodafone has proposed that the Commission should consider, as an additional matter regarding the application of section 18, incentives for cellular mobile telephone network operators to offer retail services that compete with retail services provided over fixed telephone networks.

176. Vodafone is concerned that regulation of mobile termination rates will impact on Vodafone's ability to compete not only in the mobile services market but also in any broader markets that arise as a consequence of fixed-to-mobile substitution. We believe this effect must be considered in the application of section 18 of the Act.

XIII Appendix 2 – Broader regulatory issues

Relationship between Telstra and TelstraClear's submissions

177. The positions of TelstraClear are in stark contrast to those of Telstra in Australia.

178. Telstra (2003) has specifically rejected the need for regulation of 3G termination in Australia:

> "Given the immature stage of development of 3G mobile services in Australia, Telstra finds it concerning that the Commission would even be contemplating the regulation of such services at this point in time. The majority of services that the Commission cites are not even currently provided, hence determining service descriptions or considering appropriate pricing principles is impossible. Consistent with the views expressed above, Telstra would strongly oppose any move to regulate 3G services and believes that if the Commission were to proceed to do so it would undermine incentives for investment in 3G technology in Australia. The Commission already comments on the slow implementation of 3G services in Australia – the only impact that regulation would have is to further slow or cease the development of this technology. Therefore, Telstra believes it is inappropriate to respond to the Commission's questions regarding the form of regulation, its impact on the LTIE and the pricing principles that should apply."

179. Telstra (2004) also seems to disagree with TelstraClear on market definition issues:

> "The market definition is crucial not only to the Commission's assessment of the state of competition but also to the overall conclusions of the Commission, including on the preferred pricing principles to be applied to the eligible service. Telstra submits that:
>
> - the Commission's view that the relevant market is limited to mobile termination alone ignores the two-sided characteristics of mobile telecommunications service provision and the non-separability of termination from origination;
>
> - the demand-side substitution possibilities available to retail consumers who place calls to mobile networks to communicate with a particular person are understated by the Commission;
>
> - the claim of limited mobile termination substitution possibilities between different mobile networks is nothing more than the direct consequence of the Commission's narrow market definition, but the constraints on mobile termination pricing are far more substantial than the Commission argues; and

- technological developments may well occur within the three-year timeframe adopted by the Commission that could substantially alter the form and characteristics of the relevant market."

180. We understand that the New Zealand and Australian markets are different and that these differences may justify alternative approaches to regulatory issues in the two countries. It would be helpful if TelstraClear could explain what it thinks the relevant differences are that could drive dramatic divergences in view between Telstra in Australia and its New Zealand subsidiary.

181. We could easily understand that there would be differences in prices, in costs, and in competitive conditions that might affect the welfare implications of regulation of MTRs in different countries. But we find it harder to understand why there would be differences in market definition, or in whether regulation of 3G termination can be justified at all.

Response to Econet submission

182. We consider Econet's submission to be quite confused. Econet seems to be a less than enthusiastic supporter of regulating termination charges. This could be because termination charges are a significant revenue stream for all mobile network operators – including companies that hope to gain entry into the NZ industry such as Econet. If the Commission wished to promote further entry into the mobile market then it would firmly decide not to regulate termination charges.

183. Having cast doubt on the value of regulating termination charges, Econet attempts to persuade the Commission to advocate other regulation that will support its business case for entry. Accordingly, Econet supports stronger regulation of national roaming on Vodafone's network, despite presenting no evidence of market failure in national roaming negotiations, or of failure of the existing specified level of regulation.

184. In our view Econet's views are not well-founded. We take issue with almost every paragraph of the Econet submission. But the submission is mostly not about MTR regulation. So we restrict ourselves to just three general comments – on GSM roaming, on the level of retail prices, and on barriers to entry.

185. Vodafone does not have a monopoly on GSM roaming. Any company is free to acquire spectrum and build a GSM network, just as Vodafone, and Bellsouth before it, did. Econet has held spectrum licenses for some years now – it even received a taxpayer-discounted price on its 3G spectrum.

186. The OECD report is not a reliable indicator of actual retail prices or of domestic competitive conditions. The outdated OECD report did not include major price reductions made recently, and it excludes multi-connection plans (like talkZone Zero) as well as Telecom's responses to our price changes and its capped text pricing. We are working with MED to try to get more accurate benchmarking data for NZ. Even the Ministry now admits that "there may be a need for

some refinement" of the OECD cellular usage profiles to make them relevant to New Zealand conditions.[11]

187. We do not agree that the New Zealand mobile market suffers from high barriers to entry. Econet seems to ignore the fact that it already enjoys considerably more regulatory assistance than BellSouth or Vodafone ever did:

- 2G national roaming is a specified service under the Telecommunications Act 2001,
- co-location is also regulated under the Act,

- Local and Mobile Number Portability was regulated three years ago and is in the process of being implemented.

[11] Letter from David Smol (MED) to Roger Ellis (VFNZ) dated 13 December 2004, page 3.