

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



**Schedule 3 Investigation into Regulation of Mobile
Termination
Draft report**

30 November 2004

PUBLIC VERSION

I Summary

1. This document presents Vodafone's views on the issues raised by the Commission in its Draft Report on the Regulation of Mobile Termination.
2. We think that the Commission has not shown that MTR regulation would promote competition for the long-term benefit of end-users.
 - We do not think that there are any issues with the current structure or level of MTR prices that are serious enough to require regulation at this time – MTRs are not high by world standards, they have fallen, they are expected to fall further, and market developments, especially our efforts to drive fixed-to-mobile substitution, mean that MTRs are becoming less important over time.
 - The Commission's solution is not the best means available to solve a problem in the retail FTM and toll calling market – We think that cutting MTRs is unlikely to lead to substantial new entry or more aggressive competition for FTM call minutes. The Commission has not looked at the incentives for entry or competition in any detail.
 - We think that cutting MTRs may lead to negative impacts for mobile consumers – This is especially because MTR regulation has an uneven impact: it would cut our revenues substantially but would not affect our competitors to the same extent. This will have a serious impact on our ability to compete in the mobile market. The Commission has said that there will be no impact on mobile consumers or mobile competition. On our numbers even a small impact would be enough to ensure that MTR regulation has no net benefits.
 - The Commission's approach may deter investment – The Commission seems to say that regulation becomes much more likely once most of an investment has been made. We think that this stance will be detrimental to future investment in infrastructure and services.
 - Once the detriments of regulation are properly taken into account, there are unlikely to be any net benefits from regulation of MTRs – We say that the Commission is too optimistic about the benefits of regulating, not realistic enough about the costs of regulation, and too pessimistic about what will happen if it does not regulate.
3. We do not think MTR regulation is supportable on the facts. But if the Commission is to recommend regulation anyway, there must be staged reduction in prices, and passthrough of price reductions by fixed operators to retail customers must be a condition of receipt of lower MTRs. The Commission must also continue to recommend exclusion of 3G and mobile-to-mobile termination from the ambit of control. We think it should also use a cost higher than 16 cpm for its cost/benefit estimates because the 16 cpm figure is not supportable on the evidence.

4. The balance of this section outlines our position in more detail.

The context for investigation

5. We understand the reasons why the Commission has embarked on this investigation. The Commission is concerned about the overall intensity of competition in retail markets for calls from fixed lines to mobile phones and for toll calls, and about the influence that the only integrated fixed and mobile firm has in those markets. As well, many other countries have regulated or are in the process of investigating mobile termination rates, and the Commission seems to consider that previous regulatory measures (wholesaling and pre-selection) have not been sufficiently effective.
6. In our view there are at least three legislative avenues the Commission could use to address the problems the Commission sees. One is through Part IV of the Commerce Act, which could allow retail prices or margins to be regulated. The second is the under Part II of the Commerce Act, which might allow action directly if the Commission feels a market participant is abusing its market power. The third is through the Telecommunications Act which allows for the regulation of inter-firm services where this promotes competition for the long-term benefit of end-users.
7. We think that the Commission is using the wrong tool and focusing on the wrong issue. We believe that competition is workable and effective and MTR prices are continuing to fall. We say it is inappropriate to regulate Vodafone to resolve a problem with Telecom, that the approach the Commission takes to regulation is unwarranted in any case, and that the factual case for regulation is not established. Underlying the flawed approach to regulation are legal and policy problems. In the end, we think that there are unlikely to be any net benefits for consumers from MTR regulation.

Competition is workable and effective

8. MTRs have fallen over time, they are at about the world price, they are forecast to continue to fall, and they are being overtaken by market developments as we seek to drive substitution of calling from fixed to mobile phones.
9. We do not agree with the Commission's market definition. The Commission should adopt a cluster or two-sided market definition and define a broader mobile services market. We fear that by defining a market for termination on each operator's network, the Commission has effectively pre-determined the outcome of its investigation.
10. Regardless of the market definition, the key underlying question is whether Vodafone is constrained in setting MTRs, and we point out the effects of countervailing power on our pricing of MTRs. We are continuing to develop new products that encourage fixed-to-mobile substitution and mean that MTRs will become less important over time.

11. Competition is also working for consumers in the mobile market, with falling prices, new products and services and special offers. Customer churn keeps mobile operators on their toes. The MED's report on the OECD data is not a reliable indicator of the state of competition in the New Zealand mobile market as the data is outdated and incomplete.

The Commission's approach is unwarranted

12. It is not appropriate to regulate Vodafone in an attempt to achieve lower prices for FTM callers or to address a price squeeze by an integrated fixed-mobile network operator. Regulating Vodafone does not address a price squeeze.
13. We do not think that regulation will achieve the goals of Sections 18 and 19 of the Telecommunications Act. It will not result in increases in competition: even if there are gains for FTM callers, they will likely be offset by negative impacts on mobile consumers. It will not produce efficiencies: on reasonable estimates there are no net benefits from this regulation. It is not even clear that the beneficiaries of regulation will be end-users as opposed to fixed operators.
14. The Commission's approach will distort competition in the mobile market. It has an uneven effect where most of the costs fall on Vodafone. In fact, a significant effect of the regulation will be to transfer resources from Vodafone to fixed-line operators, and this will reduce our ability to compete in the mobile market. This effect is worsened by the steep one-off nature of the cut. There is no precedent for price cuts to MTRs of this size without a glidepath.

The factual case for regulation is poor

15. The Commission is overly optimistic on the benefits of regulation. This is especially the case with the Commission's assumptions about the extent to which cuts in MTRs will be passed through into retail FTM calling prices. The Commission predicts passthrough of between 124% and 170% when history suggests that 65% would be more reasonable. The Commission has actually assumed that fixed-line operators will reduce the margins they make on calls to mobile phones. Experience to date suggests that this is unlikely.
16. The Commission's price comparison does not generate useful information on the costs of mobile termination in New Zealand. Recent cost information from Australia suggests a conservative price of 20.5 cpm for Vodafone's Australia network, and we have reasons to think that this rate understates the costs in New Zealand.
17. The Commission has rejected any negative impacts from regulation on mobile consumers. Our estimate is that any such effect would only need to be small to entirely outweigh any net benefits of MTR regulation.
18. The Commission says that if it does not regulate 3G there will be no impact on investment incentives from this regulation. We disagree. Regulated markets are not like unregulated ones, so it is inevitable that we will behave differently.

On this basis we think that even regulation of 2G prices could affect future investment, especially given the Commission's stance that regulation can not affect incentives once most of an investment has been made.

There are legal problems

19. The problems we see with the Commission's analysis lead to legal problems. In common with regulators in other countries, the Commission has adopted a market definition that is too narrow. This market definition is not appropriate in New Zealand where the three main players all face very different incentives from each other. Market definition is about defining constraints, and this has not been properly addressed by the Commission.
20. The Commission's cost benefit analysis counts wealth transfers from producers to consumers as a net benefit. The Commission also counts benefits that would eventuate even without an increase in competition. We say that these approaches are inconsistent with the Act.
21. The Commission has been unable to identify how regulating Vodafone's MTRs would promote competition in another market, so cutting MTRs seems more like price control to us. We think that the Commission should not use the Telecommunications Act for price control.

There are unlikely to be net gains for consumers from MTR regulation

22. We are not convinced MTR regulation will promote competition in the FTM and toll calling market. And we expect that the waterbed effect will impact on the mobile services market. Most of the MTR price cut will in effect amount to a transfer from Vodafone to Telecom and TelstraClear that will reduce Vodafone's ability to serve our customers in the mobile services market. We do not think that this is in the best long-term interests of end-users.
23. We think that there is no need to regulate MTRs at all. But if the Commission does decide to regulate, then Vodafone argues that there should be a staged reduction in prices (consistent with overseas and previous Commission practice) and that passthrough of price reductions by fixed-line operators should be a condition of access to regulated lower prices.
24. Vodafone relies on 3G not being regulated. We say the market for 3G services is too immature for regulation to be assessed at present. Vodafone will not even be launching its 3G services until the middle of 2005. We agree with the Commission that regulating 3G now would be extremely risky. A reasonable regulator would wait and see.
25. We argue that the Commission should exclude mobile-to-mobile termination from the scope of its regulation. There is no good reason to regulate, and in any case the Commission has not done any work on this issue. We also think that the Commission should not use the 16 cpm rate as its estimate of costs for the cost benefit analysis. This number is unsupported without a lot more

work to make the figures from overseas that it is based on comparable with New Zealand.

26. In the final analysis, we think that there will not be any net public benefits from the regulation of MTRs. The Commission proposal adds up to reducing our ability to compete in the mobile market, reducing incentives to invest, and no guarantee of lower fixed-to-mobile calling prices.

II Questions for the Commission

27. The Commission's investigation raises some important issues. The questions below remain unanswered. Without reasonable answers to these questions, no credible case can be made for regulation of MTRs.
28. The Commission must be sure that any regulation will benefit consumers by promoting competition. Regulation must be expected to generate lower fixed-to-mobile calling prices, and avoid offsetting impacts on other prices or on investment incentives.
29. Based on the information contained in the Commission's Draft Report, Vodafone does not believe that the proposed regulation will promote competition for the long-term benefit of end-users.
 - Without passthrough there are no net benefits overall to end-users from this regulation. The Commission predicts that passthrough of cuts in MTR rates into retail fixed-to-mobile calling prices will be between 124% and 170%. It says that the rate of passthrough has been 65% in the last seven years. How will the Commission guarantee that rate of passthrough will climb to the very high levels the Commission predicts without any mechanism to encourage passthrough of savings?
 - Why does the Commission think that a cut of up to 45% in mobile termination rates won't impact on mobile customers?
 - How can the Commission provide an assurance that there will be no impact on Vodafone's ability to compete in the mobile services market when MTR regulation will lead to a large transfer of revenue from Vodafone to other players in the market?
 - The Commission has excluded 3G services from regulation at this point. However, given the Commission's stance that regulation becomes much more likely once most of an investment has been made, how can the Commission be confident that this regulation won't impact future investment in infrastructure and services?
 - How can the Commission justify an immediate 45% cut in MTRs, when as far as we know, this has never been done anywhere in the world?
 - How can the Commission take 16 cpm as a reasonable estimate of the costs of mobile termination in New Zealand based on numbers from only five countries without considering how those all five countries are different from New Zealand?
 - Why does the Commission think that a 16 cpm rate is reasonable when recent cost modelling from Australia shows that 20.5 cpm is a conservative estimate of the costs of termination there, and there are reasons to think that costs are likely to be higher in New Zealand?

- Aren't market developments like Vodafone's talkZone closed user-group products undermining the Commission's concerns about MTR rates in any case? And isn't it unusual to define a market specifically for termination when it is obvious that competition for termination happens through competition for mobile subscribers?
- How could the Commission reach a conclusion that mobile-to-mobile termination should be regulated without having done any analysis on this point?
- Given all these concerns, is the Commission really confident that regulation of MTRs is in the long-term best interests of end-users?

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IV Introduction

30. This document is part of Vodafone's submission to the Commission on its investigation in the regulation of MTRs.
31. Our submission is made up of six documents.
 - The main submission on the issues raised by the Commission (this document), plus a table showing new products, services and special offers that has been separated off for convenience,
 - Answers to questions that the Commission asked in its Draft Report,
 - A Covec paper, "Modelling Regulation of Mobile Termination Rates", that extends and improves the Commission's modelling work and analyses the impacts of alternative assumptions on the net impacts of regulating MTRs,
 - A Covec paper, "Profitability Impacts of Mobile Termination Regulation", that estimates the impacts of MTR regulation on the various market participants,
 - A spreadsheet, "Covec MTR Cost-Benefit Model 25 Nov", containing a cost-benefit model developed by Covec, and
 - A Frontier Economics paper on the Commission's welfare modelling, benchmarking of MTR rates, and the potential impacts of a delay in 3G investments.
32. We have attached a copy of the Vodafone Australia Access Undertaking to the ACCC on the Mobile Termination Access Service that was filed on Friday 26 November. We refer to the cost numbers from the Access Undertaking in our submission, and we expect it to be of general interest to the Commission.
33. We have also attached a copy of a paper from Rey and Julien on mobile to mobile termination that may be of use.
34. As usual, all restricted information in this submission is enclosed in square brackets ([]) and designated as VNZCOI (Vodafone-designated Commission Only Information), VNZRI (Vodafone-designated restricted information), or TCNZRI (Telecom-designated restricted information) pursuant to the Commission's "Confidentiality Order for Mobile Termination Investigation" dated 16 July 2004.
35. This document is structured as follows:
 - In section V we discuss market definitions and competitive conditions in the relevant markets. We explain why prices for other mobile services would be affected by MTR price cuts.

- In section VI we discuss the impacts of MTR regulation on the retail FTM and toll calling market. We argue that regulating our MTRs will not affect Telecom's ability or incentives to price squeeze, but it will limit our ability to compete with Telecom in the mobile services market.
- In section VII we point out that to cut MTRs so sharply without a glidepath is unprecedented. A glidepath also has a range of other benefits.
- In section VIII we look in detail at the Commission's modelling of the benefits and costs of regulation, the assumptions that it makes and the conclusions that it draws. We present an alternative model, develop some other factual scenarios that we consider more realistic, and explain why we think the benefits of regulation are greater than the costs.
- In section IX we analyse the impacts on dynamic efficiency of the regulation of MTRs. We support the Commission's draft decision not to regulate 3G termination. But we argue there will be a chilling effect from the Commission's position on the impact of regulating 2G termination.
- In section X we present our conclusions. Our view is that the market is delivering the lower MTR rates that the Commission wants. There is no justification for regulation, especially since it will have negative impacts on mobile consumers, reduce our ability to compete and generally affect incentives to invest.

V Regulating MTRs will have negative impacts for mobile consumers

36. In this section:

- We explain why we think the Commission's market definition is inappropriate for the purpose at hand. We continue to believe the only reasonable market definition is one that puts mobile termination in the same market as retail mobile services.
- We provide evidence of the pressures that prevent us from setting MTRs as we would do if unconstrained by other market participants, and outline the market developments that are reducing MTRs and their significance over time.
- We explain why there is no justification for regulating MTRs as between competing mobile networks. The Commission's position is unclear on this issue. We explain why regulation of MTM rates is unnecessary.
- We present data on prices, products and services and churn to help illustrate that mobile services are workably competitive. We explain why we think barriers to entry into markets for the provision of mobile services are not significant for a serious entrant and getting lower, and why MTR regulation may raise barriers to entry.
- We explain how important MTR revenue is to our business, and the impacts on us of the MTR price cuts proposed. This underlines the commercial necessity for us to respond to MTR regulation through subscription or calling pricing. This is especially since, as we explain, the impact of MTR regulation falls disproportionately on Vodafone.
- We point out that it was accepted by UK regulators that a full waterbed effect was likely if MNOs were not making economic profits overall. We refer to our average ROCE figure provided to the Commission in our supplementary submission on the Issues Paper. Our rate of return provides no basis for assuming (as the Commission effectively does) that Vodafone has been extracting super-normal profits. Instead it supports our argument that reductions in our revenues are likely to impact both on mobile customers and on our ability and incentives to invest in our network.

The mobile services market is workably competitive

37. The Commission takes a standard vertical approach to market definition. It defines one market for termination on the network of each mobile operator, within which each has a monopoly, and a retail mobile market, which the Commission says is not fully competitive because of significant barriers to entry.

38. We believe the Commission's reasoning is flawed for four reasons:

- Its market definition is inappropriate – The Commission should take a two-sided approach to market definition in preference to its vertical definition, and define a single mobile services market.
- We are constrained by countervailing power – Even if it adopts a market for termination on each operator’s network, the Commission should recognise that we are constrained by countervailing power. Prices for MTRs have fallen and are forecast to continue to fall because of this, and because of market developments that make MTRs less and less important as we implement strategies to drive fixed-to-mobile substitution. There is no justification for regulation of MTM termination rates.
- 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.
- The barriers to entry are not high for a serious entrant – We accept that to build a new national mobile network any new entrant is going to need to commit a lot of money and ensure that it has national coverage. But in our view entry is easier now than it was when Telecom, BellSouth and Vodafone entered the market: the regulatory environment is currently tilted towards promoting entry through the existing regulation of 2G national roaming and co-location. And there are alternative strategies that a new entrant could adopt to reduce the risks and costs of entry.

The Commission should define a single mobile services market

39. The Commission defines separate wholesale markets for termination on the Vodafone and Telecom mobile networks (para 147). It also defines a single retail mobile services market (paras 174 and 175) in which Telecom and Vodafone compete for subscribers, for outgoing MTM calls by subscribers and for off-net mobile calls to those subscribers.
40. We continue to believe that the Commission’s definition of a wholesale market for termination on each network is unhelpful.
41. The Commission’s rejection of a two-sided or cluster market analysis is unconvincing. In our view what is actually going on in the market is best explained using a two-sided market definition in which Telecom and Vodafone compete to offer both origination and termination services.
42. In this part we look at the Commission’s views, explain the basics of our view of the appropriate market definition, and encourage the Commission to rethink its competition analysis.

The Commission's approach

43. The Commission defines a wholesale market for termination on each network and posits that each operator has a monopoly in the market for termination on its network.
44. The Commission is persuaded of the correctness of this approach on the basis of its usual SSNIP test: it reasons that "any attempt to raise mobile termination rates is unlikely to lead to demand- or supply-side responses that would render such an increase unprofitable" (para 141).

The basic logic

45. It is undoubtedly true that only Vodafone can allow access to its network for the termination of calls. But this does not mean that Vodafone has substantial market power in a hypothetical market for termination.
46. Simply because we have the ability to restrict access to the use of the network that we have built does not mean we have a welfare-reducing monopoly. If we did not have the ability to restrict access to our network, we would never have built it in the first place. The ability to restrict use is one of the fundamental rights that an owner of an asset has. To suggest that this ability is somehow automatically anti-competitive is hard to accept. In fact, that ability is required for competition to work.
47. What happens in fact is that there is intense competition for termination revenues, but it is observed in competition for subscribers. If Telecom wishes to compete with Vodafone in terminating calls to Customer A, or in originating calls from customer A, it just has to attract customer A to its network. If successful, it gets the revenue associated with calls to and from customer A. This includes the revenues from customer A's calls, the on-net calling revenues from another Telecom customer calling customer A, and all MTR revenues from customers of other networks calling customer A.
48. The fact that termination is one of a number of services in a package that includes origination and access cannot change the reality that another supplier exists, and that both are competing hard to win customer A's business, for example by offering subsidised handsets, different call plans or cheaper text messaging.
49. The linkage of services provided over the same infrastructure also creates complementarities in demand. So customers buy both the ability to make calls and the ability to receive calls in a package. The elasticities of the services may differ (i.e., evidence suggests that people care more about making calls than about receiving them), but the economies of scope on the supply side mean that the services are more efficiently provided as joint products, and that this is how they are offered to customers.
50. The result is that the customer has a choice of buying a bundle of mobile services from either Telecom or Vodafone. Neither operator sells only termination, just as neither sells only origination services. And consumers do

not buy the ability to be called by subscribers to other networks separately from the ability to be called by subscribers to their own network.

51. Consider what would happen if termination charges were increased. The revenue available to an operator from providing services to customer A on the network would grow as well. And this would intensify operators' efforts to win customer A over to their network. Firms could expend the extra expected revenue on efforts to recruit customer A.
52. So higher termination rates for calls to customer A mean more competition to attract customer A in the first place.

The two-sided approach

53. We have previously made extensive submissions on market definition. We have argued for a cluster market approach to market definition. The two-sided market literature formalises the same logic.¹
54. A firm in a two-sided market provides a single "platform" that serves two distinct customer groups. The platform facilitates some kind of communication or exchange between the two consumer types. Each type of consumer is only willing to pay to use the platform if there are some of the other type of consumer also using the platform. Examples of two-sided markets include shopping malls, credit cards, real estate agents, and auctioneers
55. As the literature shows, the pricing decision of firms in two-sided markets is more complex than for firms in more familiar one-sided markets. A firm in a two-sided market needs to make a choice about both price structures (how to split cost recovery between the two sides) as well as price levels (what price to charge each side of the market).
56. Fixed-to-mobile termination can be thought of as a two-sided market. The platform is the mobile network, and there are two distinct consumer types: fixed-line callers, and mobile subscribers. MNOs therefore have one set of network costs and two possible revenue streams (access and termination). Unless there are customers on both sides of the market (i.e., people to call and people to be called), we make no revenue from termination at all. We have to get both sides of the market on board for the market to exist.
57. We recover our total costs from termination customers (consumers and other carriers) and origination customers (consumers) combined. The two-sided market literature formalises what is intuitively obvious: the pattern of cost recovery depends on the demand elasticities for each product. So the split of

¹ Useful references on two-sided markets included: Evans, "The Antitrust Economics of Two-sided Markets" (2002); Rochet and Tirole, "Platform Competition in Twosided Markets" (2002); Armstrong, "Competition in Two Sided Markets" (2002, revised 2004); Wright, "One-sided Logic in Two-sided Markets", Review of Network Economics, 3 (2004).

costs between the two sides has no necessary relationship to the costs of serving either side of the market.²

58. The operation of the two-sided market means that MNOs recover their costs in such a way as to maximise the total number of calls being made. The two-sided market ends up setting higher termination prices and lower access/subscription prices in equilibrium because mobile subscribers are more sensitive to price than FTM callers who have contractual relationships with the MNO only through their FTM calling provider.
59. The two-sided market approach requires the Commission to take a different approach to its analysis. There are many features of two-sided markets that challenge the Commission's current one-sided approach.³
- Prices on one-side of a two-sided market need not reflect costs on that side of the market – The appropriate analysis is competitive conditions in the market as a whole, rather than competition in any one part of the market. The Commission argues that FTM callers are being “overcharged”. Since we are not making excess profits, then presumably MTM callers are being “subsidised” from a one-sided market perspective. But in fact without this price structure, we would have too few mobile subscribers for the FTM callers to make calls to.
 - In a two-sided market, such asymmetric pricing also improves welfare relative to symmetric pricing – If fixed-line callers care more about being able to make calls to mobiles than mobile subscribers care about receiving them, then an efficient structure of fees will reflect this fact. This is because attracting an additional mobile subscriber to the network raises welfare (of mobile subscribers and fixed line callers) more than attracting an additional amount of fixed-to-mobile calls.
 - A high price-cost margin need not be an indication of market power in the whole market – The Commission argues that prices for termination are above costs and that this is because MNOs have market power in a termination market. In fact, any market power does not relate to any restriction of output or ability to restrict competition, or even any deviation from the perfectly competitive price structure for mobile termination. It relates to the non-sensical definition of the market. The SSNIP test needs to be applied to both sides of the market at once.
 - An increase in competition in the mobile services market would not necessarily lead to a different structure of prices – A monopoly MNO would price discriminate between termination and origination. So would MNOs in a perfectly competitive market. Competition might drive down the overall price (or the average price charged in the two-sided market). It could also reduce the returns to MNOs. But it will not necessarily lead to a different structure of prices.

² Note that this is quite independent from the standard Ramsey pricing problem that arises when there are joint and common fixed costs even if the market is not two-sided.

³ Many of the following points are drawn from Wright (2004), pages 47-51.

Competition may make MNOs experiment with alternative price structures. Vodafone has closed-user group products (like TalkZone Zero) [] VNZRI

This means our customers face our MTRs directly and we will have an incentive to reduce MTRs to those customers in order to boost takeup of the products.

- The price structure can continue to prevail even in mature networks – MNOs frequently subsidise handsets to grow the customer base as they roll out their networks. Often those subsidies will not continue once the customer base has reached sufficient size. Vodafone no longer offers handset subsidies on consumer plans (the quid pro quo is that consumers do not need to sign up to contracts). But even if everyone in New Zealand had an active mobile connection, it would still be worthwhile for MNOs to charge a greater proportion of costs to off-net customers and a lower proportion to on-net customers to drive a larger total volume of calling overall.
- One side of the market is not receiving a cross-subsidy from the other – The way to see this is to understand that the service is being provided to both FTM callers and mobile access/origination customers at the same time. The removal of the service to either will result in a loss of all termination revenues to an MNO, since without attracting both FTM callers and access/origination customers, an MNO can attract neither.

If there was a cross-subsidy, then FTM callers would be better off if access/origination customers were not on the network, because it would remove the cross-subsidy requirement. The cross-subsidy argument also suggests that a rival network could set up that only served FTM callers. Of course, neither of these is possible. Without access/origination customers on the other side of the market, FTM callers would have no one to call.

60. The two-sided market analysis also means that the split the Commission maintains between the retail and wholesale levels is meaningless. The fact that termination is sold to both carriers and consumers and origination to consumers alone is not a sufficient reason to put these two services in separate markets. Unless both services are provided at the same time, neither will be produced. And so the only sensible analysis is one that looks at both sides of the issue at once.
61. The Courts have also emphasised that market definition must reflect the form that competition between enterprises takes. This was clearly expressed in *Tru Tone*⁴ where the Court of Appeal stated:

“ Viewed in relation to product and time the single album definition of market ignores commercial realities. It focuses on short run phenomena.

⁴ *True Tone Ltd v Festival Records Retail Marketing Ltd* (1988) 2 TCLR 542 (CA) at p 359-360.

It presents a snapshot rather than a moving picture of continuing commercial activity.”

62. The High Court has also confirmed the need for the Commission to be alert to broader evidence when defining markets. In *Brambles v Commerce Commission*⁵ the High Court said:

“it must be recognised that the *ssnip* test used by the Commission to determine substitutability is an analytical tool which will not always be able to be applied with confidence. ... the Commission or Court should always be alive to other evidence which can assist in identifying the appropriate market in accordance with commercial common sense.”

63. Vodafone submits that the Commission has failed to apply such a commercial common sense approach to market definition in the draft report. A market simply for mobile termination does not reflect the form that competition actually takes in the mobile market. A two-sided market definition accords with a commercial common sense approach to market definition for the purpose of analysing competitive conditions.
64. The fundamental question at the heart of market definition in this case is whether Vodafone’s behaviour in setting MTRs is constrained. The market definition is only a tool that is designed to help demonstrate the answer to this question. As we explain further below, we say that Vodafone is constrained both by its customers, through competition for subscribers and through RPP products, and by other carriers through their countervailing power in negotiations on MTRs.

Competitive conditions in the broader market

65. The extent of competition in the market for mobile services determines whether operators are able to retain any surplus revenues that may be gained from mobile termination. If there is competition for access/origination, then there can be no competition problem for termination services. In practice, we do not make high returns as a result of high termination prices because of the vigorous competition for access/subscription.
66. We accept that there is an unusual structure of prices for mobile termination and access. The point of this section is that it makes sense for the purposes of a competition assessment to put call termination and call origination into a single two-sided market.
67. The implication of this submission is that the Commission should redo its competition analysis with a two-sided market definition. The market definitions that the Commission has adopted do not help it to understand and assess the relevant competitive conditions. In fact, we maintain that the basic framework of market definition that the Commission has chosen for its analysis effectively predetermines that the outcome of its investigation would be a recommendation for regulation.

⁵ *Brambles New Zealand Ltd v Commerce Commission* (2003) 10 TCLR 868 at paragraph 81-82.

68. In our view, the two-sided market analysis makes it even more obvious that the Commission's only logical objective in regulating MTRs must be distributional – i.e, the Commission should only regulate MTRs if it wants to transfer resources from mobile users to FTM callers. In our view this is not a legitimate goal for the Commission. It can only recommend regulation if it promotes competition in telecommunications markets for the long-term benefit of end-users.

The Commission's analysis of wholesale competitive conditions ignores relevant factors

69. Assuming that the Commission does not adopt a two-sided market definition, in this part of our submission we look at competitive conditions in the Commission's wholesale termination market.
70. The Commission's view is that each provider has a monopoly in the market for termination on its own network (paras 180 and 190), and will have for the foreseeable future.

MTR pricing is constrained by countervailing power

71. The Commission is mistaken in suggesting that Telecom and Vodafone can act independently of each other or of their customers in setting any of their rates, whether MTRs or retail prices.
72. It seems that the Commission takes this view because of its impractical definition of a market for termination on each mobile network.
73. Rather than viewing mobile termination as a traditional monopoly problem where a profit-maximising firm faces a passive demand, it is more correctly viewed as a *bargaining* problem between profit-maximising firms.
74. In practice, there is countervailing market power that prevents us from setting MTRs as we would wish. The firms that buy Vodafone's termination services have the ability and the incentive to negotiate the price downwards.
75. The incentive comes from the fact that retail prices do not move in lock-step with termination rates. This means that reductions that we agree in MTRs for Telecom, TelstraClear and other FTM providers increase their profits. To the extent that the reductions are eventually passed through to end-users, they can be used to capture additional market share and increase volumes of FTM calls.
76. The ability comes from the facts that:
- Vodafone subscribers demand the ability to be called by all fixed-line callers.

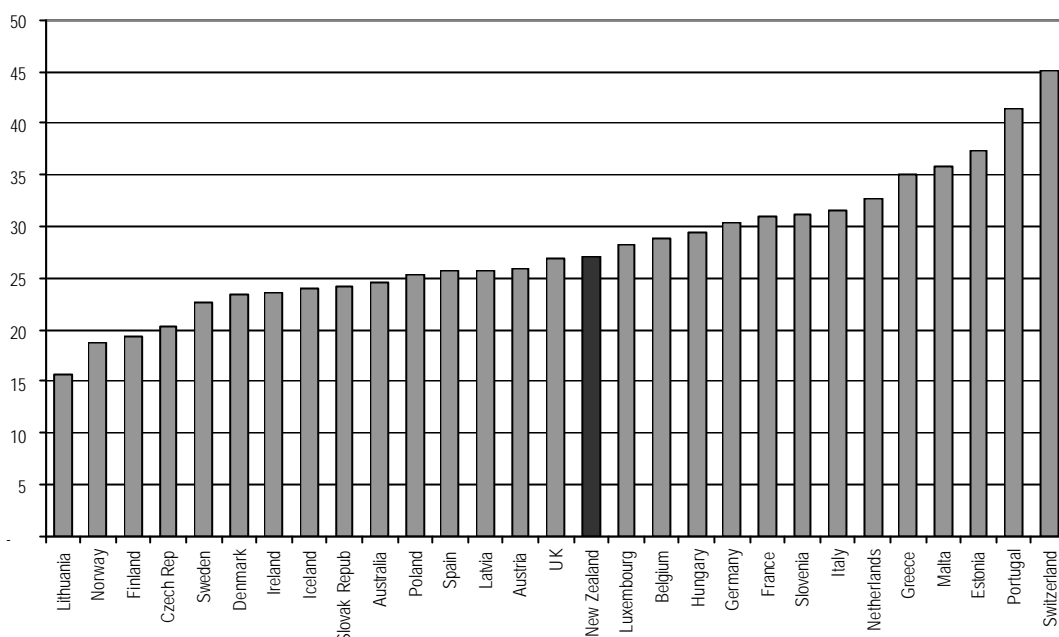
- Vodafone needs to buy unregulated services from these companies, including national transport for example. We have commercial relationships with them across a wide range of different activities.
 - FTM providers have and use the ability to differentiate retail prices by terminating network. This allows them to penalise us in the retail markets, which creates significant bargaining power during negotiations.
77. One of the strengths of the New Zealand market is that no two players are alike. This means that each has different incentives, and these incentives come into play in the negotiation of MTRs.
78. More simply put, the Commission has no explanation for why MTRs have fallen over time. On its analysis of unconstrained monopolies for termination, there is no reason why Vodafone would ever have cut its rate from the 50cpm that the Commission states prevailed in 1997.⁶
79. We also can not see why Telecom and Vodafone would have symmetric MTRs if they were both profit-maximising monopolists. If it really was the case that termination on each network is a distinct market, then each network would set the monopoly price for termination having no regard whatsoever for the other's price. The resulting prices could possibly be equal, but that would be most unlikely.
80. Symmetric MTRs would only arise from the Commission's market definition if Telecom and Vodafone faced exactly the same cost and demand curves. We know that this is not true on the demand side, because Telecom has a significantly larger range of bundling opportunities than we do.
81. Arbitrage also constrains our MTR prices. A carrier who does not have an interconnection contract with us can make arrangements with another carrier who does have such a contract to transit traffic onto our network. This means that prices to all carriers that interconnect with us must remain at about the same level.

New Zealand's MTRs do not seem high by world standards

82. We consider in more detail below the price comparison approach the Commission has taken to estimating the cost of termination in New Zealand. This is also one of the subjects of the paper in our submission from Frontier Economics.
83. Here we are only presenting data comparing New Zealand MTRs with those prevailing in European countries for which we have data available from the European Independent Regulators Group (IRG) from July 2004, plus Australia. It seems that our MTR rates are in no way out of line with other countries.

⁶ In fact, on the Commission's logic we should have *increased* the mobile termination rate as the demand curve for FTM shifted outwards as the mobile penetration rate increased over time.

Figure 1: Average MTR rates in Europe, Australia and New Zealand (July 2004, NZ cpm)



Source: IRG (2004), Vodafone NZ, Vodafone AU
The data underlying this graph is in Table 8

84. We note that not all the rates given above can be taken as regulatory estimates of the costs of mobile termination. As the Commission recognises, most countries do not regulate MTRs on the basis of incremental costs. The rates above also do not show what is likely to happen to MTR rates in the future.
85. Later in our submission we argue that the Commission should be very cautious about assuming too much from simple international price-comparisons. We also treat with considerable scepticism the FTM rates that the OECD reports. However, even if only in a very broadly indicative way these figures suggest that there are no great problems with our MTR rates.
86. The MED's report on the OECD numbers does not give much cause for concern about retail FTM prices either. It says that New Zealand's retail FTM rates are at about the average for the OECD for business users. And if the figures for the residential sector are adjusted to take into account the competition to Telecom, prices to residential customers seem to be about 15% above the OECD (or about NZ\$5 a month).

The market is changing

87. The theory of regulating MTRs says that Vodafone is unconstrained in setting MTRs, and will therefore set them too high. As explained above, we are not actually unconstrained in setting MTRs. And there are at least two reasons why Vodafone would want to cut its own MTR rates (apart from the obvious fact that if passthrough were high it would generate more calls to our network and therefore more termination revenues):

- Time-of-use differentiation in pricing is becoming more important as a means of making better use of physical capital. This is expected to flow into termination rates in the near future. It seems to be common in other countries to have different prices for peak and off-peak termination rates during the week, as well as cheaper rates for termination of calls on the weekend.⁷
- The [] VNZRI and the rapid expansion of closed-user groups are also placing direct and indirect pressure on termination rates. Direct pressure occurs because of the preferred pricing models for these products, where the receiving party bears most of the costs of the call, including any termination costs. Indirect pressure may also occur due to the possibility of bypass by traffic originators who have negotiated lower rates.

[

] VNZRI

The potential of Vodafone's fixed line replacement strategies are starting to be felt in the market.⁸

There is no justification for regulation of MTM termination

88. It is unclear to us whether the Commission is proposing to regulate MTM termination rates or not. The draft service specification (after para 621) refers only to fixed to mobile operators. The Commission also raises the issue of whether Telecom and Vodafone should be prevented from being access seekers (after para 615).
89. However, in communications with the Commission shortly after the publication of the Draft Report, we were given the impression that the Commission had not intended to restrict the regulation of MTM to cover only FTM termination.
90. We think that the Commission has no justification for regulating MTM termination. MTM termination raises very different issues from FTM termination and the Commission has not considered them at all in its Draft Report.
91. While regulators have expressed concern that firms could profit by mutually agreeing on "high" termination rates, this position is no longer held by economists familiar with the literature.

⁷ For an example of the termination rate arrangements prevailing in the UK, see table 6.13 on page 96 of the Competition Commission (2003).

⁸ See, for example, "Colliers connect DDIs to mobiles", Telecommunications Review, 15 November 2004.

92. One reason is that MTM termination rates can not be a source of profit for the industry as a whole – i.e., any money that Vodafone makes from MTM termination must come from Telecom and vice versa.
93. Another reason is that firms will compete away in the retail market any profits from termination charges. This argument is the same one we make above about mobile market competition: competition for termination will be observed through competition for subscribers. Neither Vodafone nor Telecom can profit from high termination charges while there is competition between them for the subscribers who make those termination revenues possible.
94. There are a number of theoretical concerns raised by regulators in regard to the setting of MTM termination rates. We have included a paper from Rey and Julien that covers these issues in more detail. After reviewing the arguments, they conclude that the setting of MTM termination rates could only be a matter for regulatory concern under very specific conditions.
95. The theory is clearly consistent with the facts of the mobile industry, where Vodafone and Telecom are aggressive in seeking to win each others' customers. In addition, the presence of an integrated fixed and mobile operator in the New Zealand market affects incentives for setting prices for MTM termination. Telecom is a net payer of termination revenues to Vodafone primarily because of its extensive fixed network. This generates an incentive for Telecom to bargain for lower termination rates for both FTM and MTM. The FTM termination rate also impacts on the MTM rate indirectly: the potential for arbitrage prevents the two rates from differing greatly from each other.
96. If the Commission is to consider including MTM termination within any MTR regulation, it will have to present some analysis of the impacts of a price cut in MTM termination rates on competition in the relevant markets. Without having done any of the analysis, we can not see how the Commission can recommend regulation of MTM rates. As our discussion above shows, the regulatory issues around the setting of MTM termination rates are entirely different from the questions surrounding FTM termination.
97. We argue that there is no justification for regulation of MTM termination rates, and that the Commission should explicitly exclude them from MTR regulation.

The retail mobile market is workably competitive

98. The Commission does not consider that the retail mobile market is subject to limited competition. However it does conclude that competition is not intense enough to ensure that any profits from termination are being competed away in the prices of retail mobile services (para 305).
99. In our view the Commission is part way there. It sees the evidence of competition and contestability, but it does not reach the appropriate final conclusions. It has been seduced by simple arguments based on unreliable OECD comparisons. It has not done quite enough to explore the reality of competitive conditions.

100. In this section we present data on prices, products and services and churn to support our view that the New Zealand mobile services market is workably competitive. We explain why we think barriers to entry provide no grounds for concern in the market in which mobile services are provided.
101. The discussion is germane regardless of which market definition the Commission adopts. It is applicable to thinking about the two-sided market where competition for termination is reflected in access and origination, or to the Commission's vertical market definition.

Prices are falling, new services are being introduced, and customer switching keeps us on our toes

102. The Commission has reviewed a range of evidence on the state of competition. It notes that there have been major changes in market share, a huge expansion in demand, and ongoing investment in new products and services since mobile services were introduced to New Zealand (para 273).
103. As the Commission notes (para 251), it is hard to compare pricing of different mobile plans because of the way they are designed to appeal to different types of customers. One way to compare pricing is by defining some standard baskets of calls and texts and tracking the costs of those baskets over time.
104. Unfortunately no one produces reliable data for New Zealand at present. The OECD figures are not especially useful (as we explain below) because they are not up to date, they exclude a lot of relevant data, and they seem to systematically overstate usage. We understand that the MED is working on a new benchmarking approach. We have asked to be involved in its development.
105. Even in the absence of reliable benchmarking data, there is good evidence easily available of competition. This includes price competition on calls and texts (contrary to the views of the Commission in para 273), rivalry through new products, services and special offers, and ongoing customer switching between the networks.
106. There have been recent cuts in retail prices:
 - Vodafone introduced the Motormouth plan for prepay and consumer customers in August 2004. This plan eliminates the distinction between peak and off-peak pricing by lowering calling rates during the day to 49 cpm. It is designed for prepay or consumer customers who make most of their calls to other Vodafone mobiles or to landlines in New Zealand. The 49 cpm rate also includes calls to Australia, Canada, Ireland, UK and the USA. Table 9 compares Motormouth pricing with pricing on other Vodafone plans.
 - Vodafone introduced the Mobilise plans for business customers at the same time, meaning price cuts for these customers. Table 10 details the changes.

- Very recently Vodafone launched talkZone Zero, specifically for businesses that make more than one third of their calls within a calling group. The plan enables users to call mobiles within their group for no charge apart from the monthly access charge. Before talkZone Zero, such calls would have cost 15 cpm for users of a talkZone plan. Customers can also add other frequently called landline or Vodafone mobiles to the free calling plan for an additional fee.
107. Changes in pricing have reduced overall prices. Our estimate is that our prices have fallen about [] **VNZRI** in nominal terms in the past fifteen months. Customers in August to October 2004 pay lower prices than customers in the same segment in May to July 2003. The price cuts differ across customer segments. The details are contained in Table 11.
 108. Another way to look at price cuts over time is to examine differences in pricing for customers who have been on the Vodafone network for different periods of time. As is obvious from Table 12, competition means that more recent connections and re-signs have negotiated lower prices than old connections.
 109. We expect price falls to continue into the future. In our business planning we forecast [] **VNZCOI** in average outgoing revenue per minute. This reflects the overall impact on Vodafone's revenues from [] **VNZCOI** to customers. The data is presented in Table 13 on page 90, and suggests the average price per minute of an outgoing call on the Vodafone network will [] **VNZCOI** a year over the next five years.
 110. There is ongoing intense rivalry in the mobile market. Table 19 (attached separately) outlines new products, services and special offers from July 2003 to November 2004. The table provides a breakdown of competitive offers to customers in the prepay, consumer and business markets. It outlines promotions offered by Vodafone and the competitive response to these promotions. We are, of course, happy to provide more historical information to the Commission should this be required.
 111. Churn statistics provide a measure of the extent of customer disconnections. Our churn data counts the number of disconnections from our network each month and expresses them as a proportion of the average customer base in that month.
 112. Churn runs at about [] **VNZRI** for our contract consumer base and about [] **VNZRI** for prepay customers. The overall churn rate for both customer types is around [] **VNZRI** (taking into account that there are more prepay customers than consumer customers).
 113. We do not have very reliable data on where these customers go. We rely on our call centre staff asking the customer when s/he rings up to disconnect, and on the customer giving the true response. Non-response rates are very high from this survey.

114. But of the [] VNZRI consumer customers who gave a response to the question in the last year (and who were not just switching between Vodafone plans) around [] VNZRI say they are switching to Telecom or TelstraClear.
115. In round numbers, this means that we can expect around [] VNZRI of our [] VNZRI consumer and prepay customers to leave our network in the next twelve months. About [] VNZRI of them will be switching to Telecom or TelstraClear, [] VNZRI will be going overseas, and [] VNZRI will be discontinuing their mobile service.

Commentators see the market as competitive

116. Even Ernie Newman, the Chief Executive of TUANZ, whose complaints sparked the current MTR investigation, recognises that the mobile market is working for consumers:⁹

“[Our early adoption of 3G is] a sign that we do have a very dynamic and quite competitive mobile industry here in New Zealand.”

The OECD evidence is not reliable as an indicator of domestic competitive conditions

117. The Commission points to an MED report on recent OECD price comparisons as evidence that there is limited competition in the mobile services market (paras 256 and 260). This is because:
- the report shows that New Zealand’s mobile calling prices are some of the highest in the OECD (para 258), and
 - the Commission assumes that costs of operations in New Zealand are likely to be no higher than costs in other OECD countries because it has had no evidence to the contrary (para 303).
118. The baskets priced by the OECD bear little resemblance to those selected by customers in any country, and seem to be systematically biased relative to average usage. This can be deduced by comparing the cost of the “low user” basket in each of 27 jurisdictions with ARPU data reported by Merrill Lynch (2003).¹⁰ For 23 out of 27 countries, the cost of the OECD’s “low user” basket exceeds the ARPU, by an average of 37%. So, the average OECD customer uses significantly fewer mobile services than those contained in the “low user” basket.
119. By materially overstating the volumes, the OECD comparisons unduly magnify the price differences between countries. Moreover, since the extent of overstatement varies considerably across countries, the rank order of countries is also distorted.

⁹ Interview with Radio New Zealand, 22 April 2004.

¹⁰ The ARPU data are not available for three OECD countries: Iceland, Luxembourg and the Slovak Republic.

The OECD data is out of date

120. The MED's OECD comparisons use data from February 2004. They have been superseded by movements in the market, as outlined above.
- The Motormouth plan for prepay and consumer customers generates a price cut of 23% for the OECD low user using the OECD's methodology.
 - The Mobilise plans for business customers means a price cut of 13% for the OECD high user.
 - The OECD data also excludes Telecom's \$10 txt promotion, and Telecom's responses to our price cuts.
121. We have rerun the OECD's methodology but updated it for Motormouth.¹¹ The results show that New Zealand's prices for OECD low users (our Pre-pay customers) are just above the OECD average (by US\$14 a year). The results of this rerun are presented in Table 14.

The OECD results are incomplete

122. The OECD methodology involves choosing the cheapest of the available plans from each country for each of three types of user. But most of our business customers have arrangements designed specifically for them that are not based around a plan, and are cheaper than the best deal the customer could get from any plan.
123. The methodology is also based on single users. It simply can not include our talkZone plans, which are designed to lower the costs of calling within a firm. As noted above, most recently we introduced talkZoneZero, which means that business customers on the plan pay only a monthly access fee per user for all calls between Vodafone mobiles within their business, i.e., calls to and from users attract no additional charge.
124. As noted by the Commission (para 266), in its report the MED recognises a range of problems with international comparisons. In our view they have done no more than list them, without any attempt to quantify their impact or qualify the results. These issues include that:
- PPP exchange rates may not be reliable when dealing with services (as opposed to goods) and highly branded products. A dollar in New Zealand may buy less or more than a dollar's worth of mobile services in other countries. Using a number of alternative exchange rate methodologies is the normal way to account for their difficulties, but the MED presents only PPP comparisons.
 - Productivity differences and other influences on prices are not taken into account, service quality is not usually defined directly, and new services

¹¹ Unfortunately we were unable to recreate the MED's results exactly. This may be because we have a slightly later version of the OECD model.

are not taken account of in the comparisons. The methodology includes only texts and calls. Other services, for example, Voicemail, PXT, whoCalled and access to Vodafone Live!, are ignored.

- The method also does not provide an estimate of how reliable the comparisons themselves are. This makes it difficult to tell how reliable the ranking of countries the method produces is.

125. We have responded to MED suggesting the development of a more reliable and relevant benchmarking approach to mobile calling prices.

The Commission needs to do more to look at the costs of mobile operations

126. Even if prices were high relative to other countries, this would not show that the domestic market was not competitive. One reason, as the Commission recognises, could be that the costs of serving the small New Zealand market are higher than the costs of equivalent services in other countries.

127. As we said in our submission on the Issues Paper, we have not done any empirical work on the costs of mobile operations in New Zealand compared with other OECD countries. It does seem rather perverse to us that the Commission would assume that costs must be about the same as other countries without actually investigating the issue (para 303). It is not clear to us why the Commission is entitled to assume costs are the same in New Zealand as in other places if parties do not present evidence to the contrary.

128. We have attempted to correlate the OECD's mobile prices with key drivers of cost differences, notably population density. This was not successful because, as discussed below, average population density figures are not a reliable guide to network costs unless the distributions of population and networks across land are also similar in other respects.

129. Notwithstanding the lack of empirical evidence on international cost differences, it is possible to identify some of the factors that may have an impact on unit costs of mobile service, and using these, to form some views as to the relative position of New Zealand costs. Some relevant cost factors are:¹²

- economies of scale and scope,
- the ratio of coverage to capacity costs,
- factor input prices, and
- terrain.

130. There is some literature that estimates econometric cost functions for mobile phone networks, a process that is heavily dependent on good data. The paper

¹² Other factors that affect unit costs include depreciation policies, WACC, rollout speed and spectrum costs. We exclude these on the grounds that they are all affected to some extent by decisions made by the network owner.

with the best data resources is Foreman and Beauvais (1999) who find significant evidence of economies of scale. The more customers are served, the lower is average cost. On this basis, unit costs in New Zealand will tend to be higher than those elsewhere.

131. Economies of scope are also likely to exist between fixed and mobile networks as a result of the sharing of key infrastructure such as inter-city transport and certain head-office functions. So an integrated fixed-wireless firm may have lower unit costs than a stand-alone mobile operator.
132. Coverage costs are those associated with providing a given geographical footprint. They depend on the size of the area covered and include base stations and transport links. Capacity costs arise as congestion occurs in a locality, at which time cells can be sectorised or split by adding antennae or adjusting power levels. Coverage costs are fixed, while capacity costs are scalable.
133. The relatively low population density and population dispersion in New Zealand will tend to result in high ratios of coverage to capacity costs relative to other OECD countries. This will have the effect of making the unit cost of mobile service higher in New Zealand.
134. In its 2003 report on the OECD comparisons, MED presented some evidence from Amos Aked Swift on the relative paucity of traffic on New Zealand cellular networks. It said that in 2002 in the USA there were approximately 3.6 million call minutes per cell site per annum. The comparable figure for New Zealand was 1.6 million. This is consistent with the low population density data discussed above.
135. The MED noted that “[a]t this stage, the impact of scale economies on the cost of cellular service has not been quantified”, but it has not referred to this issue in its 2004 report.
136. A comparison with Australia is of particular interest. While New Zealand is on average much more densely populated than Australia, the two countries are urbanised to similar degrees.¹³ Combined with the fact that Australia has roughly 5 times our population, this results in much greater economies of subscriber density for network operators in Australia than in New Zealand.
137. Networks that cover the metropolitan areas of major Australian cities therefore provide access to far more subscribers than would be the case in New Zealand. This also reduces the cost per subscriber of inter-city transport and has flow-on effects elsewhere in the business, for example in billing systems. For this reason, we expect unit costs in New Zealand to be higher than those in Australia
138. The prices of things required to build and run a network are generally beyond the control of a mobile operator. Key categories of operating costs are wages,

¹³ About 85% in 2000, according to the United Nations Environment Programme (http://geocompendium.grid.unep.ch/data_sets/urban/data/pop_urban_percent.htm).

electricity and facility rents. There are only minor and volatile differences in electricity prices between New Zealand and Australia, while wages and facility rentals are lower in New Zealand. The impact of these factors on unit costs is conflicting and uncertain.

139. The impact of terrain on costs has been extensively discussed for fixed networks in the context of the TSO. However it is also relevant to the costs of building mobile networks in New Zealand. Much of our terrain is mountainous which increases the cost of mobile service along transport corridors.
140. In summary, there is good reason to expect that the unit cost of mobile service in New Zealand is higher than in other OECD countries, and certainly higher than in Australia, even only considering some of the factors that might drive cost differences.
141. Added to these cost factors, the income of New Zealand is low relative to the OECD. Our GDP per capita is around 30% below the OECD average. We should expect that demand for mobile services (at any given price) will increase with income, so that the demand curve for mobile services in New Zealand is likely to be lower than the OECD average.
142. These cost and demand factors reinforce each other. Networks need to cover costs somehow. Total fixed costs per head of population are likely to be higher in New Zealand than elsewhere, so revenue per head of population needs to be high to cover those costs. Income, which affects willingness to pay, places limits on cost recovery
143. In summary, we have serious concerns about the reliability of the OECD price comparison data. In our view, it is very risky for the Commission to base any conclusions about the state of domestic competition on the MED's 2004 report on OECD price comparisons without much more extensive investigation. To be complete, this investigation should cover both more comprehensive and up to date retail price comparisons, as well as an investigation of the costs of providing mobile services in New Zealand relative to other countries.

The mobile market is contestable

144. The Commission considers that the need for national coverage, high capital costs and "the maturity of the market" constitute "significant barriers to entry" that prevent the mobile market from being considered contestable (para 304).
145. The Commission's definition of a barrier to entry is "anything that amounts to a cost or disadvantage that a business has to face to enter a market that an established incumbent does not face" (para 225).
146. We say that this definition should read "that an established incumbent *did not or has not had to face*". Otherwise the Commission needs to be careful in applying this definition. After all, Telecom, BellSouth and Vodafone had to

build new national mobile networks and also faced the high capital costs of entry.

147. In our view entry into the New Zealand mobile market is relatively easy. The regulatory environment here is friendly to new entrants. Spectrum is cheap by comparison with other countries (and held by two firms that have chosen not to enter the market at this point). Number portability is on its way (although we note that churn levels already seem high). National roaming and cell-site co-location are already regulated.
148. Some of the direct regulatory costs of participating in the New Zealand market are significantly lower than Australia, for example, as demonstrated in Table 1. Australia also suffers under a significantly higher level of regulatory control than New Zealand. Telstra's most recent annual report provides a sobering summary of the Australian arrangements.¹⁴

Table 1: Comparison of some NZ regulatory costs with Australia (\$NZ million per year)

| | New Zealand | Australia |
|---------------------------------|-------------|-----------|
| Carrier Licence Fee | 0 | 33.9 |
| Industry Forum | 0.5 | 3.1 |
| Number Allocation ¹⁵ | 0.1 | 72.1 |

NZ\$ 1= A\$ 0.8532

Sources: Vodafone NZ and AU data

The figure for the Industry Forum for NZ includes only subscription fees and excludes cost overruns

The figures for Australia are for the 2002/03 year

Exchange rate is from Table 8 in the Draft Report

149. We do not see the Commission's barriers to entry as "barriers to entry" in the economic sense. They were issues that BellSouth, Vodafone and Telecom had to deal with on entry as well, and the two near-entrants (most obviously TelstraClear) are able to deal with these too.
150. The high costs of building a mobile network are not a barrier to entry. What matters for a commercial entry decision is the expected return on investment rather than the size of the investment. Capital is not scarce. There are poor investments and good investments, but there is no shortage of capital for investment. In any case, no one can seriously argue that Telstra is capital constrained. Admittedly, the position of Econet Wireless is rather less clear, although the Hautaki Trust, its partner, was given a 5% discount on the price of its 3G spectrum.
151. Telstra actually bought GSM spectrum in May 1993 but chose not to enter. Vodafone bought that spectrum from Telstra in late 1997. TelstraClear owns 3G spectrum, and is expected to soon announce a date for its entry into the mobile market. We understand that it is busy securing resource consents for cell-sites.

¹⁴ 'Innovation everywhere', (2004) Telstra Annual Report, pages 42-58.

¹⁵ The New Zealand figure consists of the annual fee paid by members plus a contribution to cost overrun that the NAD has experienced in the last two years.

152. Likewise, the requirement for national coverage does not strike us as a barrier to entry. BellSouth and later Vodafone built their networks after Telecom had already built its network. They did not have national coverage from day one. And they did not have the benefit of regulated national roaming, cell-site co-location, the prospect of number portability, or regulated fixed termination rates to lower their costs. Nor did they have an industry specific regulator that they could petition to investigate any constraints on competition in the market.
153. The Commission suggests that the maturity of the market may mean higher barriers to entry as well. This is based on the theory that it is easier to gain market share in a growing market (para 291).
154. While we admit this is a theoretical possibility, so is the reverse. The empirical reality depends on whether it's easier to take customers from a rival once penetration is high or to lure new customers into the market prior to that time. A person who already has experience with using mobile services is likely to be much more discerning about the offers of rival providers, and is therefore susceptible to well designed offers. For example, Telecom's recent text offers have likely induced some types of customer to switch. By contrast, the timed nature of mobile calls may be an important barrier to getting customers onto any network for the first time.
155. There is no reason to assume that it is easier to persuade a non-user to take-up mobile service than it is to persuade an existing user to switch providers, and the Commission presents no evidence to support its assumption that this is so. We understand that Hutchison Whampoa has expanded its customer base faster than expected after its recent entry into the Australian market, a market that already had three mobile operators and a high level of mobile penetration.
156. We also feel that by not even recognising the possibility that the reverse could be true, the Commission is giving insufficient weight to the market expanding efforts of Telecom, Bell South and Vodafone. There was no market when Telecom first started offering mobile services. And only a very small market when BellSouth entered the fray. Telecom, BellSouth and Vodafone undertook vigorous and costly measures to grow the market.
157. We would anticipate a new entrant mobile operator would also take measures to grow the market. A more detailed examination of the market would have shown the Commission that considerable growth potential remains. Yes, most people in New Zealand have a mobile phone already. There may not be much more room to grow subscription numbers for handsets. But that is not the end of the story.
158. We estimate that only around 7% of total voice and data calling minutes in New Zealand (and only 14% of total voice minutes) are carried on mobile networks, with the balance being on fixed networks. This does not suggest a market that has reached maturity to us. There is lots of room to grow, and that is not even counting growth in calls over time or all the new services that continue to be developed on mobile networks.

159. In addition, there are other ways to enter the mobile market without taking the risk of building a new national mobile network. The competition need not look exactly like Vodafone or Telecom Mobile. There are many strategies that could lower an entrant's costs and risks of entry. They include starting by offering wireless local loop using 2GHz spectrum, expanding into voice through wireless broadband services, growing presence in the market through an agency agreement with a mobile operator, or negotiating a roaming agreement combined with a partial network build.
160. Of course, we accept that it is expensive, difficult, and risky to enter the mobile market in New Zealand. But those expenses, difficulties and risks were taken by Telecom, BellSouth and Vodafone. In our view the Commission should focus on changes to the costs and risks of entry over time rather than on whether a particular line of business is expensive to enter or not. Seen in this light, we think that barriers to entry are actually falling over time.
161. One reason no one else has yet entered the mobile market could be regulatory uncertainty. It is certainly worthwhile for TelstraClear to see if it can convince the Commission to designate national roaming before committing much in the way of resources to building its own mobile network. It may also be worthwhile for others to let Vodafone take the costs and risks of building a 3G network and consider entry if that investment is successful and it creates demand for 3G services.
162. Econet Wireless recently announced that it would not enter until more had been done to lower the costs of entry through the introduction of number portability and more generous terms for access seekers to cell-site co-location.¹⁶ It makes no sense for a business to invest substantial capital if it believes it may be able to persuade a regulator to grant it lower-cost entry at the expense of a competitor.
163. For the avoidance of doubt, we point out that we do not consider that the absence of some regulatory advantage for new entrants counts as a barrier to entry.
164. Ironically, MTR regulation may make it less likely that a new entrant will enter the mobile market because it will substantially reduce the revenues available from mobile services for such an entrant. And this would count as a real barrier to entry on our terms as well as the Commission's: Telecom and Vodafone were not previously constrained by regulation in setting MTRs.

Regulating Vodafone MTRs will have negative impacts on other services

165. The Commission rejects the arguments for the waterbed effect, arguing that:
- Regulation of MTRs will not affect subscription prices because:

¹⁶ "Econet sits tight till conditions improve", New Zealand Herald, 22 November 2004.

- the UK evidence does not support this effect (para 335),
 - the most marginal customers are prepay users who do not pay subscription fees in any case (para 338), and
 - there are offsetting benefits from lower FTM calling rates on the incentives to have a mobile subscription (para 339).
- Reduction of MTRs may not reduce MTM off-net calls because “reduced mobile termination rates are unlikely to benefit either operator” (para 333).
166. The Commission does say that reducing MTRs may possibly increase mobile origination charges “though there is no reason to expect that any increase will exceed the off-setting reduction” (para 342). We are not entirely clear on what off-setting reduction the Commission is referring to.
167. The Commission does not estimate any impact on any mobile access/subscription or calling prices in its cost/benefit analysis. It thereby assumes implicitly that there will not be any impacts.
168. The Commission’s argument amounts to the assertion that lowering Vodafone’s termination revenues by [] **VNZRI** will not change pricing, availability or service for any of the other products and services that Vodafone sells.
169. Firms make pricing and investment decisions based on their analysis of the market. Obviously a market with controlled prices is different from a market without price control, so it is inevitable that our pricing or investment decisions will change if mobile termination is regulated:
- Practically, MTR revenue makes up [] **VNZCOI** of our total revenues. It is difficult for us to accept that the Commission could cut the MTR rate by up to 45% for five years and expect no response through pricing for our services.
 - A waterbed effect can happen regardless of whether any retail mobile market is competitive or not. We in fact think that the market is competitive, but even an unconstrained monopolist would adjust subscription or calling prices in response to a cut in MTRs.
 - We do in fact take into account mobile termination revenues when setting calling prices and when determining how much can be spent on customer recruitment and retention.
 - The existence of a waterbed effect was accepted in the UK since mobile operators overall were shown not to making economic profits. To help the Commission in doing this work, we show that Vodafone is not making economic profits. There is no evidence that we can just afford to absorb such a huge cut in revenues.

170. We think that it is unreasonable for the Commission to assume there will be no impacts at all on the mobile market. It should estimate a reasonable level of impact on mobile origination or subscription prices and calculate the implications for public welfare of those impacts.

We will have to respond to an MTR cut of this size

171. MTR revenues comprise around [] **VNZCOI** of Vodafone's total revenues. MTRs provide a significant revenue stream to the Vodafone business. It is difficult to understand why the Commission believes a regulated reduction of the MTR will not lead to an impact on other revenue streams.
172. Regulating MTRs to 16 cpm will reduce our revenue by around [] **VNZCOI** relative to the expected rate of around [] **VNZRI** rate for 2005.
173. Vodafone would have to respond to such a change in its revenue. We can not predict at this stage what will happen, but a change in the market of this magnitude will mean a change in competitive conditions. Whatever does happen, we can say that it will not be possible for us to continue behaving the same way we would have if there were no price control. Possible changes include some or all of the following:
- Reduced or delayed capital spending (i.e., lower investment), or efforts to lower costs.
 - Lower margins (i.e., reduced returns to our shareholder) – As we show below we are not making such great returns anyway, and we are competing in a global market for capital.
 - Reduced expenditure to recruit/retain customers – This may mean higher priced handsets for customers, longer timeframes between handset replacement, and fewer sign-up incentives for customers (and therefore lower customer growth or lower penetration).
 - Higher (or fewer reductions in) prices for subscription or mobile calling – Our business analysts count termination revenues when considering pricing for plans and for calling, so to reduce those revenues will affect the payoff from customers. One result of this could be increased outbound calling rates or changes in prices for subscriptions.
174. Given the size of the impacts on Vodafone, we consider that the Commission should assume that there will be some impacts on subscription or mobile outgoing prices. If it thinks that the waterbed effect will not operate, it would be helpful for the Commission to state explicitly what it does see happening in the mobile market in response to the cut in MTR revenues.
175. One way to estimate an impact on mobile prices could be to develop a model of the mobile market and perform some econometric modelling to figure out a reasonable range of impacts from MTR regulation.

176. An alternative might be to figure out what size of impact reduces the net benefits of regulation to zero, and then consider the likelihood that the impact on the mobile market will be greater than that.
177. In its report *Modelling Regulation of Mobile Termination Rates*, Covec uses a simple method like this, and estimates that only a small increase in prices for mobile services would result in detriments in the mobile market that would offset any gains in the FTM and toll calling market.
178. Covec takes the average revenue per user (ARPU) of the mobile networks as the price in this hypothetical market, and the number of subscribers as the quantity. Covec shows that an increase in ARPU of only \$2 per subscriber per month (or around 3.5%) may be sufficient to offset all of its estimate of any potential gains from regulation in the FTM and toll calling market.
179. Even if the Commission does not believe that the waterbed effect is very strong in New Zealand, this demonstrates that even a relatively weak effect will be sufficient to undermine the argument for regulating MTRs.

MTR regulation gives Telecom a big competitive advantage

180. The Commission states that “incomplete pass-through will advantage Telecom over Vodafone”, but concludes that “the competitive impact is not expected to be material” (para 544).
181. Our modelling suggests that the competitive impact will in fact be material. Indeed, for reasonable assumptions about passthrough Telecom may actually gain from MTR regulation because the gains to its fixed calling arm outweigh the lost revenue to its mobile arm.
- Under Covec’s Factual 3 scenario it is estimated that Vodafone will lose [] **VNZRI** in NPV terms over five years from MTR regulation, with Telecom gaining [] **VNZRI** and TelstraClear [] **VNZRI**.
 - Even on the Commission’s numbers, the impacts are far more negative for Vodafone than for Telecom. Under the Commission’s Factual 2, Vodafone loses [] **VNZRI** in NPV terms from MTR regulation. Telecom loses [] **VNZRI** and TelstraClear gains [] **VNZRI**.

Figure 2: Impact of MTR regulation on profitability – Commission Factual 2 scenario (\$ million, NPV 2006-2010)

[

] VNZRI

Source: Covec modelling

The data underlying this graph is in Table 16

182. The detailed results for the Commission's factual 2 and our Factual 3 scenario are shown in Table 15 and Table 16. The Covec paper "Profitability Impacts of Mobile Termination Regulation" provides details for other scenarios.
183. It may seem unintuitive that the impact is so much to our disadvantage, given that our customer base is only slightly larger than Telecom's. The reason is because we are most exposed to the termination rate: whereas most of the FTM calls that terminate on Telecom's mobile network originate on Telecom's fixed network, all FTM calls that terminate on our network originate off-net. This means that the MTR actually only applies to a fraction of total FTM calls, and most of those calls are on the Vodafone network.

The waterbed is not dependent on the level of competition

184. The Commission does not clearly explain its reasoning behind rejecting the waterbed approach in theory.
185. The Commission does set out our previous submission (paras 321 to 323). This is to the effect that, if the market is workably competitive, firms will react to a cut in termination revenues by raising prices for other services to ensure they cover their WACC.
186. The Commission argues that the waterbed effect relies on an initial condition in which competition for services or subscriptions is sufficient to compete away economic profits from termination (para 340). We think that the market

is competitive enough for this to be happening. We have outlined some more evidence on this point already.

187. But we also argue that this condition of workable competition is too restrictive. It ignores the way the industry operates, which is to sell bundles of services. In fact, firms could be incentivised to react through pricing even if the market is uncompetitive.
188. To understand the issue, consider the polar opposite of the Commission's condition: a monopoly mobile network. This firm will attempt to set the prices of a bundle of services at point where the marginal revenue from selling another bundle equals marginal cost. If price of one part of the bundle is reduced, marginal revenue will fall, but costs will stay the same.
189. The monopolist's response to an MTR price cut can be thought of in several ways (reducing output of the bundle to equate lower marginal revenue and cost, raising prices and reducing quantities for other parts of the bundle) but all are implemented the same way: by increasing one or more other prices.
190. The Commission's conception of the waterbed also seems to disregard two other routes by which changes in MTRs could impact on mobile subscriptions and calling prices:
 - Impacts through demand effects – Any reduction in retail FTM prices will cause changes in demand for other services that are substitutes for or complements with the retail FTM calls.
 - Impacts through the competitive process – We argue that MTR regulation will affect the process of competition in the mobile services market, and that this may also drive changes in the prices of other mobile services.

The evidence from the UK is inconclusive

The UK regulator accepted the existence of waterbed

191. The UK Competition Commission extensively considered MTR issues in its investigation of charges set by mobile operators in the UK.¹⁷ It concluded that a waterbed effect would operate in the UK market. The mobile phone companies overall were not making economic profits, and could be expected to respond to cuts in termination rates by increasing subscription or calling charges.
192. The Competition Commission accepted that higher termination charges could be reflected in subsidies for handsets and subscriptions, and that cutting termination rates could lead to higher handset prices and subscriptions for mobile customers.¹⁸

¹⁷ Competition Commission, (2003).

¹⁸ Competition Commission, (2003), para 2.427.

193. It nonetheless concluded that the existing arrangements were allocatively inefficient and that it was better not to have such a high rate of churn of handsets.¹⁹ It stated that it did not expect retail prices to increase, given that MNOs were all expecting retail prices to fall, but that a 100% waterbed would lead to moderation in expected price reductions. The MNOs were expecting real price reductions of 5.5% a year, but a full waterbed effect would mean that prices would fall by about half that amount, or around 3% a year.²⁰

Whether it has actually happened is less clear

194. In the Draft Report the Commission suggests that the evidence from the UK does not support the existence of a waterbed effect.
195. We think that it is difficult to draw this conclusion from the evidence. In our view it is hard to conclude either way from the evidence whether the waterbed effect has happened or not. It is, of course, extremely difficult to see a change in price trends if prices were already falling. In addition it is impossible to know what would have happened in the absence of MTR regulation – the Competition Commission thought that operators were intending to reduce prices and that the waterbed effect would moderate their price reductions. We understand that there has also been a change in market conditions, with a new competitor seeking to undercut existing operators in order to build market share.
196. Enders Analysis (2004) suggests that the Ofcom analysis does not present the full picture, essentially because it is at an insufficient level of detail. Enders Analysis argues that charges for off-net calls have in fact risen for some on account customers. At the same time, contract prices have fallen for higher volume bundles, which drives up revenue per minute for operators since most customers do not use all of their free minutes. This is consistent with the existence of a waterbed effect.

New Zealand is very different from the UK

197. In any case, it is difficult to apply lessons from the UK to the New Zealand market. This is because the New Zealand market has a vertically integrated carrier that offers both fixed and mobile services.
198. This difference in market structures means that the impact of regulating mobile termination prices will be imbalanced between Vodafone and Telecom. Telecom will not be subject to the same commercial and financial pressures to increase their mobile outgoing and subscription prices. In fact, as outlined above, our estimates suggest that, relative to Vodafone, Telecom will benefit substantially from MTR regulation.

¹⁹ Competition Commission, (2003), para 2.427.
²⁰ Competition Commission, (2003), para 2.564.

We suggest the Commission should formally consider evidence on profitability

199. Underlying the Commission's rejection of the waterbed effect is its apparent belief that New Zealand's mobile firms are making too much money. The Commission's use of phrase "excess profits" (para 11) is concerning, given that the Commission does not appear to have considered any evidence on the issue. It certainly has not tabled any evidence in its report for comment or scrutiny by the parties.
200. The Commission's assertion that prices are above its estimate of costs is the only evidence it presents of the alleged excess profits.
201. But assessing the economic profit of one product or service supplied by firms that offer multiple products and services will not generate useful information on market power. This approach would be equivalent to comparing the price of one product in a supermarket and drawing conclusions about the market power of that supermarket as a result.
202. To assess market power in the mobile industry, the only measure of profitability that should be considered is the profitability of the industry as a whole over a significant time period. To simply claim that any pricing above cost must be the result of monopoly is flawed and dangerous reasoning.
203. As we submitted previously, our average ROCE from 1998 to 2004 is [] **VNZRI**. In our view this does not demonstrate that Vodafone is making excess returns.
204. Even if our returns were significantly higher than our WACC for a sustained period, that in itself would not be evidence of monopoly pricing. It might simply be that we have a superior customer mix, or a superior level of efficiency. In other words, an alternative explanation is that we are constrained by competition but just better at our job than other firms. Both of these advantages are contestable, so any excess returns that are generated through these means would not be an indicator that a firm had a dominant position in the market.
205. The only way to determine this issue more fully is to model profitability for the industry as a whole. We can not do this work because we do not have access to the relevant Telecom data. This is precisely why we think that the Commission should either do more work on this issue and present its results for scrutiny by the mobile operators, or assume a waterbed effect.

VI Regulating Vodafone will not stop a Telecom price squeeze

206. In this section:

- We point out that the Commission's logic of separate wholesale markets for termination suggests that it should define separate markets for FTM calling to the Vodafone and Telecom networks.
- We explain how an MTR price cut could increase competition in theory, and look at the likelihood that MTR regulation will actually increase competition in practice. We do not think it likely that higher margins for operators will increase entry or passthrough.
- We argue that cutting MTRs will not change any incentives for Telecom to implement a price squeeze. And we point out that a price squeeze can not be affecting prices for residential customers in any case, since margins in that segment already seem large. We see regulation of our MTRs as equivalent to price control in the absence of a downstream market where competition is harmed by our MTR rates.
- We conclude that MTR regulation will not promote competition overall. It seems unlikely to lead to increases in competition in the FTM and toll calling market, and it will reduce our ability to compete with Telecom in the mobile services market.

The Commission's market definition is logically inconsistent

207. Even if the Commission is disinclined to adopt a two-sided market definition, to even be consistent with its own wholesale market definition, it should identify two separate downstream FTM and tolls calling markets – one for FTM calls terminating on the Vodafone network, and one for calls terminating on the Telecom network.

208. The Commission argues for carrier-specific termination markets using a SSNIP test approach. The wholesale level is therefore a relevant functional level, according to the Commission, and its view is that each carrier could implement a SSNIP over termination services provided by its own network. However the definition of downstream markets is conducted entirely with respect to horizontal issues, regarding the inclusion or otherwise of toll services. Vertical constraints are not considered. This omission leads the Commission to define a single national retail market for FTM and toll calling services.

209. The conclusion of a single national retail market for FTM and toll calling services is inconsistent with the upstream market definition. If termination on Telecom's network is a distinct market, then Telecom could profitably implement a SSNIP. The customers affected would be mobile and fixed line retailers, neither of whom, the Commission argues, could defeat the price rise. Flow-on price rises by these retailers (or a hypothetical conglomerate that owned them all) could also not be avoided by their customers, since they are

the only suppliers of access to Vodafone's customers. Calling a Telecom mobile number is not a substitute, by the Commission's definition. So whatever the preferences of the end-user as to single bills, the logic of the SSNIP test shows that the Commission's upstream definition translates into distinct retail FTM markets for access to each network.

210. In short, a SSNIP implemented by a retail monopolist on calls to the Telecom Mobile network would be profitable regardless of the price of FTM calls to the Vodafone network. We note that Telecom's Anytime plan holds prices of retail FTM calls to the Telecom network 7 cpm below the prices of FTM calls to the Vodafone network. Telecom's BusinessTime plan charges \$1 for a 60 minute call to the Telecom mobile network, but 38 cpm (both excluding GST) for FTM calls to the Vodafone network.
211. Its wider retail market definition prevents the Commission from considering targeted approaches to competitive problems that result from vertical integration. In short, if the competitive problem is a price-squeeze by Telecom on other retail FTM providers, regulating Vodafone's MTRs is not the solution. On the contrary, regulation of Vodafone's MTRs will more likely weaken competition in the mobile services market.

The inclusion of tolls is inconsistent

212. It is not clear to us that toll calling and FTM calling are in the same market. The fact that they are sold together is not decisive: the definition of a single market implies substantial substitutability or complementarity between products.
213. If a single product monopolist (e.g., of retail FTM calls to the Telecom network) could profitably increase the price above cost, that product is a distinct market. The possible constraints on that monopolist's pricing that would justify definition of a broader market are either:
- substitution towards other products, or
 - the infeasibility of a firm surviving as a single product firm in the first place (in the case of cluster markets).
214. It is readily apparent that high levels of substitutability are not present between tolls and FTM calls, so this rationale for defining a broader market is not available.
215. The most obvious cluster markets in this industry are for mobile services, where it is simply impossible to conceive of customers wanting to buy subscriptions from one firm, calls from another, texts from a third and termination from a fourth. Notwithstanding the fact that the Commission has declined to accept this suggestion for mobile calling, it has argued that tolls and FTM are a cluster market.

216. The Commission has mostly ignored the toll calling part of the market in any case. It mentions toll calling in the market definition part of its report, but it does not refer back to it after that. In particular, the Commission does not do any analysis of the impact of a cut in MTRs on toll call prices or quantities, or consider the impact of changes in toll call pricing on overall welfare.
217. We suggest that the Commission should either:
- define a single demand curve for tolls and FTM calling and use that to estimate welfare effects, or
 - define two separate markets and estimate the effects of an MTR price cut on each separately. It is not at all clear to us that there would be any beneficial effect on the toll calling market from a reduction in MTRs.
218. In this document we continue to use the Commission's wording of a single national FTM and toll calling market for simplicity. This should not be taken as implying that we agree with the Commission's market definitions.

Regulation of MTRs may not increase entry or passthrough

219. The Commission considers that raising margins for operators in the FTM and toll calling market will promote competition in the FTM and toll calling market by reducing the ability of Telecom to implement a price squeeze (para 483).
220. Although the phrase "to promote competition" in section 18 does not require proof of an actual increase in competition, a recommendation that is unlikely to deliver any actual increase in competition (and therefore no actual benefits to end-users arising out of any increase in competition) cannot be said to comply with sections 18 and 19.
221. We are not convinced that increasing margins for FTM and toll calling operators will increase competition. So we think that regulation of Vodafone MTRs can not be justified under sections 18 and 19.
222. Competition is the process through which firms attempt to gain advantage over each other. Competition can be facilitated (i.e. promoted) through two primary channels:
- entry by new firms, or
 - more aggressive behaviour by existing firms.
223. Things that can promote additional entry include:
- regulations that mandate the supply of essential inputs not previously available,
 - the removal or easing of official constraints on entry, such as licensing conditions and resource consents, or

- regulations that increase the operating margins available to entrants.
224. Things that can promote more aggressive behaviour by existing firms include:
- things that reduce switching costs, or
 - things that give customers better information.
225. Apart from these, most predictions about things that promote more aggressive behaviour by existing firms rely on detailed assumptions about the nature of the existing competitive process. This is typified by the work of Fudenberg and Tirole (1984), which identifies four main strategies that can be adopted in response to market changes.²¹ It is by no means certain that increasing the margin available to FTM retailers will lead them to be more aggressive.
226. Based on this, the only reliable candidate thing which regulating MTRs will do to promote competition is increasing the operating margins available to entrants. The Draft Report is consistent with this being the thing that the Commission relies upon.
227. The idea is that MTR regulation will generate bigger margins for existing FTM and toll calling operators and encourage more operators to enter this market. In order for this to be consistent with the purpose of the Telecommunications Act there must be a reasonable expectation both that further entry will occur as a consequence of regulating MTRs, and that as a result of that further entry, the historic rate of passthrough will increase.
228. In our view neither of these is likely. The Commission is making a choice in favour of perceived gains in static efficiency at a cost in both static efficiency (losses to mobile customers) and dynamic efficiency (distortion in competition and in investment incentives).

It is not clear that MTR regulation will increase entry

229. Entry will only occur if potential entrants expect to be able to win sufficient market share at prices that permit the recovery of their fixed costs. We doubt that the proposed regulation will actually induce significant new entry, and we are concerned that the Commission has not conducted even a cursory analysis of the business case for entry.
230. New entrants will face a number of difficulties aside from the apparent ability of Telecom to price squeeze. These include switching costs, product differentiation and the one-bill effect. They could outweigh the apparent attractiveness of a large increase in the gross margin on FTM calling. The

²¹ Fudenberg and Tirole (1984).

experience of recent entrants suggests entry is not as profitable as the apparently high margins would suggest.²²

231. Entrants will also have to consider the likely reactions of existing operators to their entry. Existing operators faced with new entry must choose between fighting or accommodating the new entrant. Fighting usually results in lower prices, but incumbents can lose substantial margins if they cut prices for all customers. Instead the normal strategy for an incumbent is to target price cuts to customers who are likely to switch.
232. On the demand side, the wider the market definition, the less incentive a cut in MTRs provides for new entry. If end-users buy a bundle of services that includes toll calls and FTM calls, reducing the termination rate only reduces the input cost of one component of the relevant bundle. It will have a weaker effect on the promotion of entry.
233. Moreover, unless there is an entrant ready to move now, the Commission's plan is likely to entrench the position of existing firms. An immediate windfall gain will help to strengthen the existing firms, enabling them to better fight off an entrant. As we explain further below, a credible commitment to a sequence of MTR reductions would be more likely to promote entry than the Commission's proposed strategy.

Increased margins may not generate higher rates of passthrough

234. In our view there is no reason to expect that regulating MTRs will increase the rate of passthrough by existing operators. The Commission presents no evidence on this point at all. This seems odd to us, since it is a key plank in the Commission's argument for regulating MTRs.
235. The pronouncements of operators do not give much cause for optimism. CallPlus has announced a 50% passthrough rate for its residential customers,²³ and has also written to customers promising a cut of 15% from retail prices if the recommendations made in the Draft Report are implemented. This implies a passthrough rate of around 60%. Telecom has suggested that there may be no passthrough at all. TelstraClear has promised 100% passthrough of any MTR price reduction.²⁴
236. Overall there is nothing from carriers' public statements to suggest that passthrough will be materially in excess of its historic rates.
237. The reality is that unless Telecom changes its prices, most of the market will see no benefit at all. It is therefore useful to consider the incentives of Telecom to reduce its FTM prices.
238. Using data presented in the restricted version of the Draft Report, and Commission supplied data on the total volume of FTM minutes, we have

²² Annette Presley is quoted in "Unlimited" magazine as saying that Callplus's entry was a mistake. (Unlimited Magazine, Monday, 1 September, 2003).

²³ 'Callplus commits to five cent MTR reduction', The Line, 19 October 2004.

²⁴ 'Telecom rebuffs mobile cost cut', The New Zealand Herald, 22 November 2004.

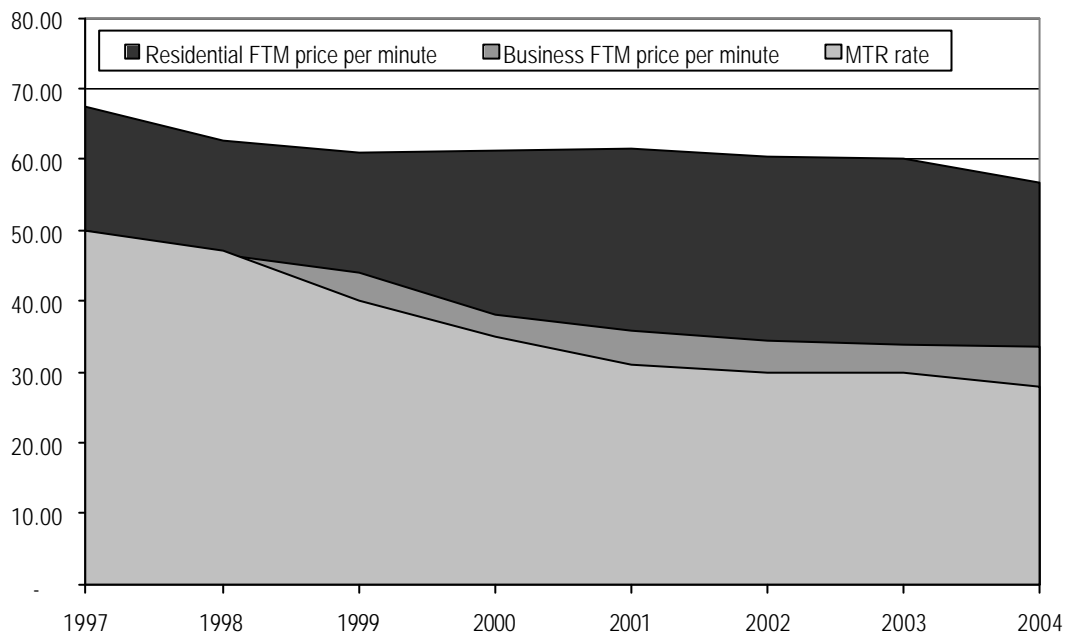
estimated the amount of margin Telecom would lose from cutting its FTM price by 1 cent per minute at approximately [] TCNZRI per annum. By contrast, losing [] TCNZRI of the FTM market would cost Telecom around [] TCNZRI per annum. So unless Telecom expects to lose [] TCNZRI of its share in the FTM market it will not change its prices.

239. Losses to Telecom of this magnitude will not occur unless the retail market becomes substantially more competitive: over the last four years Telecom's market share [] TCNZRI per annum.

If high margins drove passthrough, then retail prices would have dropped for residential customers

240. In our experience, the retail markets for telephony have very significant customer-specific dimensions. Comparison of retail margins across customer groups shows that high margins can persist over time.

Figure 3: Retail FTM prices and MTRs over time



Source: Derived from Tables 9 and 11 of Draft Report
The data underlying this graph is in Table 17

241. The Commission says that the average FTM price for business customers is at or around the Commission's estimate of costs (34 cpm), but the average price for residential customers is 57 cpm. If the Commission were correct that higher margins would generate more competition, we would not expect this 23 cpm business-residential differential to have persisted.
242. The price gap between business and residential calls can hardly be explained by a price squeeze in the provision of FTM and toll calling to business customers since the Commission says toll call prices are three times costs (paras 200 and 201). It is difficult to accept that a 23 cpm business-residential

differential is caused by MTRs that are 10 or 11 cpm above the Commission's estimate of costs.

Regulating MTRs will not stop price-squeezes

243. The Commission argues that regulating MTRs will lower input costs for operators in the FTM and toll calling services market. This will reduce Telecom's ability to price squeeze and increase competition for FTM calling.
244. The Commission presents the price squeeze as the only competition problem in the FTM and toll calling market. The Commission suggests that limiting the price-squeeze opportunities that Telecom has is the only avenue it can see through which regulation will promote competition. Paragraphs 480 to 482 explain why passthrough might increase anyway, even without regulating MTRs. Paragraph 483 identifies the price-squeeze channel. No others are cited.
245. If other firms can not match Telecom's prices, this is to the customers' benefit, at least in the short term. They get cheaper calls, after all. The Commission does not present evidence on the extent of the problem, but we can not see how it could be very extensive if the average price is 42 cpm and residential customers are paying an average of 57 cpm.
246. If Telecom prices below 34 cpm for high-value business consumers, it may do so because it can make the money back on other services that it sells those customers. TelstraClear and others will no doubt do the same. This suggests that:
- the Commission needs to consider a broader picture than just FTM pricing. Again, the appropriate analysis is of competition between bundles rather than competition on the basis of individual services, and
 - cutting MTRs to 16 cpm will not prevent Telecom from implementing a price-squeeze. It will continue to offer do so provided that overall it can make money from a customer. Regulating MTRs will simply shift the price squeeze to a lower price point, and weaken competition in the mobile services market in the process.

Regulating Vodafone MTRs is more like price control

247. Section 19 requires the Commission to choose the best means to achieve its objective of promoting competition for the long-term benefit of end-users: the Commission recognises this in paragraph 49 of the Draft Report. Regulating Vodafone MTRs is not the best means for the Commission to resolve a perceived problem with Telecom's ability to price squeeze other providers of FTM calls to business users.
248. In addition, we submit that the Commission must have regard to the wider statutory context and the presumption against unnecessary regulation when interpreting and applying the Act. The parliamentary debates on the

Telecommunications Act 2001 confirm it was Parliament's intention to protect against unnecessary regulation. For example:

- "[The Bill] follows the basic principle of as much market as possible and as much Government Regulation as necessary It encourages and promotes commercial arrangements wherever possible" (David Cunliffe, Hansard 9 May 2001)
- "It is a fine balance between commercial imperative in the first instance, and Government intervention when the need arises" (Hon Paul Swain, Hansard 9 May 2001)

249. The Minister of Communications made the same point when the Act was first passed:²⁵

"New Zealand needs a telecommunications regulatory regime that intervenes only where it is necessary to make the market operate more effectively".

250. The Commission throughout the Draft Report repeatedly concedes that the threat to entry and expansion to those operating in the FTM and toll calling market arises from the presence of a vertically integrated operator in the market. To recommend regulating MTRs of mobile-only operators on the basis of the ability for integrated operators to price squeeze, is intrusive and unnecessary. It also seems to us to be an improper use of the Commission's powers, since a recommendation to control Vodafone's MTRs is effectively a recommendation for price control.

251. The scheme of the Act contemplates that regulation can apply to particular access providers, most notably Telecom. It is not necessary that regulation apply to Vodafone if regulation of Vodafone would not reduce a competition problem in a downstream market.

252. A more detailed and targeted approach to the analysis of MTRs is therefore feasible, and is clearly consistent with Parliament's intentions when passing the Telecommunications Act. Such analysis would reveal that the extent of a price squeeze problem is limited to the retail market segment in which Telecom supplied business users. The Commission should target any regulatory intervention accordingly.

Overall we do not expect regulating MTRs to promote competition

253. The Commission can only recommend regulation if it considers that the regulation proposed best promotes competition for the long-term benefit of end-users. In our view, MTR regulation is unlikely to promote competition overall.

²⁵ 'Landmark Telecommunications Act Passed', Media Statement from Hon Paul Swain, 18 December 2001

254. For the reasons set out above, we do not believe that regulation of Vodafone's MTR will promote competition. There is no reason to expect that existing retailers will become more aggressive following such regulation, and indeed some have already committed to the reverse strategy. Neither do we believe that significant new entry will occur. The Commission needs to do further work on this point.
255. Regulating MTRs would cause significant competitive detriments in the mobile sector and this would have negative impacts for mobile consumers. And the impact of MTR regulation is strongly asymmetric, so we say it will have a big impact on our ability to compete while providing a substantial helping hand to Telecom. This can not be good for competition.

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

256. In this section:

- We submit that the Commission should take account of our legitimate business expectations that a glidepath would be implemented for any significant cut in MTRs. We point out that not having a glidepath is internationally unprecedented for MTR cuts of the size the Commission suggests.
- We explain that we have made contracts and business plans on the basis of the MTR rate. As an example, a glidepath would enable us to cover our costs on handset subsidies to business customers. We have set prices for the costs of calling by customers in the expectation of revenues to be earned from calling to those customers. To cut prices without a glidepath strands those customers.
- We point out that a big one-off cut to prices is more likely to lead to sudden changes in subscription or calling pricing. It is also inconsistent with the Commission's previous work.
- We also think that a glidepath is more likely to generate the increase in competition that the Commission wants to see in the FTM and toll calling markets. We do not think that increases in competition are likely in any case, but we think that at least the Commission should give them the best chance possible.
- We explain how the Act can accommodate a glidepath.

No glidepath is internationally unprecedented

257. The Commission considers that a glidepath for MTR rates will only delay benefits reaching consumers. The Commission points out that firms will have had at least a year's notice of regulation by the time this regulation takes effect.

258. Vodafone is not aware of any regulator that has moved straight to cost-oriented rates. In the United Kingdom, Australia and Sweden, where the regulator has made a decision to cut MTR rates to incremental cost prices, a glidepath has been recommended. In other markets, such as Germany, the Netherlands and Ireland, regulators have recognised that it will take some time to build cost models and produce cost-based rates from them. In these markets, voluntary stepped reductions have been agreed between industry and the regulator.

259. The European Independent Regulators Group has acknowledged:²⁶

²⁶ Independent Regulators Group (2004), page 3.

“ An immediate implementation of charge control that sets charges at the competitive level could cause disproportionate problems for mobile operators. In such cases NRAs may apply a price cap system or a glide path to achieve a competitive level over a reasonable period of years.”

260. The Irish Regulator (ComReg) stated in its recent consultation paper on MTR regulation remedies:²⁷

“ While ComReg aims to ensure that consumers benefit from lower end user charges, it recognises that any charge reductions required to achieve cost-orientated rates may be too large to achieve in one step. An immediate one-off downward adjustment may not be appropriate because of its poor dynamic incentive properties but also because of its possible disruption to the mobile sector and consumers generally.”

261. Analysys Consulting (2003), the authors of the costing model for Oftel’s review of mobile termination rates in the UK, point out that:

“ In defining the charge control the regulator must weigh up the benefits to industry and to consumers. By immediately reducing charges to cost, regulators would provide consumers with the benefit of reduced call charges, but this would also maximise industry disruption, a potentially undesirable outcome from a regulatory perspective. An alternative method is the so-called ‘glide path’, in which charges are allowed to fall gradually towards cost over a period of time. The glide path method can incorporate a number of parameters that can be set in order to allow the regulator to adequately balance consumer and industry interests.”

262. The Commission’s reasoning does not recognise the significant negative effect a one-off adjustment is likely to have on Vodafone, particularly relative to Telecom, and the consequent harmful effect on competition in the mobile services market. This is despite there being agreement between many regulators that a one-off price reduction could cause a disproportionate problem for mobile operators.

263. The Commission’s comment that firms will have had one year’s warning of regulation by the time MTR regulation is implemented is not helpful. We plan our business many years in advance. We expected commercial forces to lower MTRs over time, and we built in some allowance for regulatory risk based on the experience of our sister companies. But we could not reasonably have been expected to predict a 45% cut in MTR rates without a glidepath precisely because no regulator in the world, so far as we know, has opted to cut prices so quickly by so much.

²⁷ ComReg (2004), para 5.30.

We have made contracts based on our expectations of future MTR rates

264. Termination revenue is a key source of revenue for us. We have built business plans and contracts on our expectations of MTR revenues in the future. For example, we use termination revenues as one way to recover the costs of providing subsidised handsets. If MTR rates fall more quickly than we expected, then revenue will be insufficient for us to recover our costs. Effectively the customers who have received subsidised handsets will be stranded. The effect of MTR regulation would be expropriation of the value of those customers.
265. The level of these subsidies is quite significant. Vodafone offers handset subsidies to almost all our business customers. In return, these customers sign-up to agreements that fix the price of calling for a period.
266. On average these subsidies work out to [] **VNZCOI** per new customer acquired or re-signed. The small to medium enterprise channel receives subsidies based on the term and plan the customer signs up to. The average subsidy cost for this channel is approximately [] **VNZCOI** per customer. These customers also receive subsidised upgrades when they re-sign.
267. Total handset subsidies for this financial year will be approximately [] **VNZCOI**. Contracts for customers who receive handset subsidies are generally between 2 and 4 years in length, with the average contract length being 3 years. This suggests a glidepath of at least that length is necessary to ensure that our investment can be recovered.
268. The mobile termination revenue generated by a customer is taken into account when determining what return Vodafone will get on the customer and when we will break-even on our investment in the customer. Without the mobile termination revenue our margins would be lower and the payback considerably longer. This may force us to price calling rates higher or to reduce handset subsidies.
269. The Commission states that we have said that there are no cross-subsidies in our business. As a general principle, Vodafone's tariffs are intended to recover at least the incremental cost of the relevant service. Vodafone does not class a handset subsidy as a cross-subsidy, but as an acquisition cost.

A glidepath would minimise disruption in the market

270. One major reason that regulators overseas have preferred a glidepath is that it minimises industry disruption. By any measure a 45% cut in prices and a [] **VNZCOI** cut to our revenues is a major disruption to our business.
271. As we pointed out above, one possible response to MTR regulation is a change to our handset subsidies, or to our pricing for subscriptions or for outgoing calling. As Covec have shown, only a very small impact is required for any benefits of regulation to be entirely offset.

272. A glidepath would help ensure that any of these sorts of changes were more muted. As noted in Table 13, we predict [] VNZCOI in retail prices. The Competition Commission certainly seemed comforted in their views about the impacts of the waterbed on the basis that they did not expect nominal rises in average prices.
273. Another response to the MTR price cut would be measures to reduce our operating costs. It has been accepted by regulators of MTRs in other countries that a glidepath is more efficient than a one-off cut in prices on this basis too. Because it allows firms to retain the benefit of any cost-cutting for a time before the savings are handed back through the glidepath, it creates better incentives for the regulated firm than a one-off price cut.

A glidepath is consistent with the Commission's previous decisions

274. The draft recommendation not to have a glidepath is also inconsistent with the Commission's previous work. As we noted in our submission on the Issues Paper, the Commission has recently developed a regulatory regime for electricity lines businesses. In doing so it considered the issue of the so-called "P-nought" adjustment. This involves an immediate reduction in prices to a level estimated to be consistent with economic costs. Some electricity regulators internationally have used it to cope with situations in which firms are earning excess profits.
275. In the event, the Commission decided not to implement an immediate price reduction for any of the electricity lines businesses in New Zealand. Instead, it uses glidepaths specified in a CPI-X form.
276. Invariably, a P-nought adjustment requires that the regulator undertake a detailed analysis of the cost of service. Without such an analysis the regulator has no way of assessing the trade-off between giving consumers the benefits of lower prices and avoiding the imposition of losses on the firm. As we argue below, it is not good enough for the Commission to draw five data points from other countries, adjust them only for exchange rate differences but otherwise assume they are applicable to New Zealand conditions.
277. The Commission does not seem to address the concern previously raised by Vodafone of the general negative effect on business certainty and investment planning where the Commission recommends a single and significant price reduction on a previously unregulated telecommunications service.

A glidepath is more likely to boost competition in downstream markets

278. There are two inter-related economic arguments in favour of a glidepath. In summary, these are that a glidepath:
- is more likely than a large initial cut to promote entry into retail markets, and

- is less damaging than a large initial cut to mobile sector competition.
279. The objective of the proposed regulation is to promote competition in retail markets for the long-term benefit of end-users. Competition will be promoted if the existing retail market participants become more aggressive, and/or if additional firms enter those markets. However, as we have explained above, promoting competition through the former channel (more aggressive participants) is highly uncertain.
280. Consider therefore the entry promoting channel. In our view, a glidepath is more likely to promote downstream entry than an immediate cut. The mechanics of market entry are relevant to understanding why this is so.
281. Market entry involves a staged process of planning, financing and implementation. The entry process does not happen overnight, though entry itself may do so. As a result a credible signal that margins will increase is likely to be more effective in promoting entry than an immediate one-time increase. The latter will immediately benefit existing firms who will be able to use it to stave off challengers from entrants, for example through aggressive advertising. This defence mechanism is not available with a staged reduction in prices over time. For this reason, a glidepath is more likely than a large initial price cut to promote entry into retail markets.

The Act can accommodate a glidepath

282. The framework in the Act is sufficiently flexible to allow a series of staged reductions in the regulated price determined by applying a formula. There is nothing in the Act that prevents using a formula for a pricing principle, so long as the formula is in accordance with section 18.
283. The Commission has even previously used a formula in its pricing principles. The designated “Residential local access and calling service offered by means of Telecom’s fixed telecommunications network” uses formulas for both the initial and final pricing principles (Telecom’s standard retail prices minus 2%).
284. Any decision to use a glidepath must also be made in accordance with section 18. Using a glidepath would best meet the purpose of promoting competition for the long-term benefit of end-users:
- A glidepath would limit the negative impacts for mobile consumers arising from disruption in the mobile market.
 - A glidepath would also reduce the damage to mobile market competition caused by the significant competitive disadvantage that MTR regulation imposes on Vodafone relative to Telecom.
 - A glidepath is consistent with the long-term approach of the Act as it places greater weight on the risks to the competitive process that could result from a large one-off adjustment.

285. While the Act only allows for two price determinations, this does not preclude a glidepath. We envisage a glidepath starting from the date on which the designated service comes into force, and ending at a point three years from that date. The determined price would be set according to when the access seeker applied: the later the date of the application, the closer to the target price the determined price would be.
286. The Commission could easily achieve a glidepath within the current wording of the Act by:
- adopting formulae within the initial and final pricing principles, and
 - providing for regulations that specify how the applicable initial and final pricing principles must be applied (pursuant to section 29(c)(ii) of the Act). The ability to create such regulations reinforces the flexibility the Commission has around initial and final pricing principles.
287. The Commission has acknowledged that the benefits of lower MTRs would take some time to passthrough to end-users, and it is optimistic on passthrough. Using a glidepath need not necessarily delay retail price cuts to end-users if incentives for retail passthrough were mandated. We discuss this issue further below.

VIII The Commission has overstated the benefits of regulation

288. In this section:

- We look more closely at the Commission's cost benefit analysis and explain our alternative model and the alternative numbers we use in the modelling. The overall impact of these improvements is to reduce the net benefits of regulation substantially as set out in Table 2.
- We consider that the Commission's assumptions on passthrough are too optimistic. We suggest more reasonable numbers.
- We think the Commission has been too pessimistic in setting MTR prices in its counterfactual, and that its FTM quantity assumptions are not well supported. We provide more reasonable predictions of the relevant prices and quantities.
- We look at the Commission's price comparisons and criticise the 16 cpm figure as being too low to be a realistic estimate of costs. Instead we suggest the Commission use a more conservative figure. Some work that Vodafone Australia has recently done for its Access Undertaking gives a conservative estimate of 20.5 cpm for Australia.²⁸ Even this number is likely to be a significant understatement of the costs in New Zealand.
- We argue that transfers are not relevant to section 18 and should therefore not be counted as benefits. We also argue that only benefits from increases in competition should actually be counted, i.e., that the Commission can only count public benefits that result from increases in passthrough.
- We suggest, again, that the Commission start some work looking at Ramsey cost allocation issues in New Zealand.
- We criticise the Commission's method of estimating indirect costs. It appears to introduce a bias in favour of regulation, since the method prevents indirect costs from ever exceeding the benefits of regulation.
- We point out some technical flaws in the Commission's modelling work.

Overall the benefits of regulation are less than the costs

289. The Commission's model of the FTM and toll calling market is very simple. We believe that it suffers from a number of analytical flaws and that it also fails to take advantage of all of the historical data on MTR and retail FTM rates that is available.

²⁸ Converted from \$A0.0175 using the Commission's exchange rate of \$1NZ = \$A0.8532.

290. Covec has developed an alternative model. We think that it better accounts for history and can be expected to better predict the future than the Commission's model. It is detailed in full in the spreadsheet that forms part of our submission.
291. We use this model to generate alternative price and quantity data under a counterfactual and three scenarios for passthrough rates that are explained below. We are not as optimistic as the Commission about the likely future rate of passthrough, so our retail FTM prices do not decline as quickly. But our model predicts that the elasticity of demand for FTM calls will grow over time, and so our estimates of future quantities are actually higher than the Commission.
292. Then we take the numbers that come out of our model and put them a replica of the Commission's cost benefit calculation (with one minor correction to the calculation of public benefits). Table 2 is a summary of those results.
293. We conclude that there is unlikely to be any economic efficiency gain from MTR regulation on the Commission's proposal. There may be small consumer welfare gains at the expense of investors in regulated firms, but we do not think that the Commission should count these as benefits.

Table 2: Estimate of net benefits from regulating MTRs (excluding any waterbed effect)

| | Net Consumer Benefits | Net Public Benefits |
|-------------------|-----------------------|---------------------|
| Commission | | |
| Factual 1 | 217.3 | 28.5 |
| Factual 2 | 185.6 | 27.8 |
| Vodafone | | |
| Factual 1 | 67.0 | 1.5 |
| Factual 2 | -6.2 | -9.0 |
| Factual 3 | 54.8 | 1.0 |

Source: Covec calculations; Commission Draft Report
All numbers are \$ million in NPV terms over the five years to 2010

294. We also think these numbers are an understatement. This is for several reasons:
- We are excluding any negative effects on the mobile market, effects that we think are likely, and could easily outweigh the estimate of benefits.
 - We use the low 16 cpm figure the Commission uses in the Draft Report.
 - We use a conservative counterfactual that is generated by the model. We show below how it compares with what Vodafone actually thinks will happen to MTR rates.
 - We use the Commission's method for calculating indirect costs, which we think is mistaken.

Passthrough rates as calculated by the Commission are too optimistic

295. The Commission argues that the current passthrough of wholesale price reductions to retail prices is 65%, but this can be expected to increase to 100% once Telecom's ability to price squeeze is reduced through regulating MTRs.
296. This is extremely optimistic in our view, but the Commission goes further and assumes that increased entry into the FTM and tolls market will result from an increase in the margins available to firms in that market. The Commission concludes without formal analysis that this competition will result in passthrough of at least some of the above cost margins that FTM operators currently enjoy on top of the whole MTR price cut.

Historic passthrough rates give no cause for optimism

297. Passthrough incentives by existing FTM firms are clearly not as strong as they could be. The Commission's own method calculates the passthrough rate as 65% over the period since 1997. We estimate that the immediate passthrough rate (i.e., passthrough that occurs within a given year) has been 28%.
298. The average passthrough rate masks the fact that retail FTM calling markups actually rose from 1998 to 2001 and have stayed at around 8.5 cpm since then. This increase in markups is in spite of declining MTRs and declining retail FTM prices.
299. We think that the Commission should therefore be very cautious about assuming that further cuts in the MTR rate will lead to a reduction in the margin that FTM operators take on retail FTM calls.
300. We have said previously that we think passthrough incentives are limited for a number of reasons, including the presence of an integrated operator, and the lack of impact that MTRs have on any relevant structure in the market that reduces competition.
301. As demonstrated in Covec's "Modelling Regulation of Mobile Termination Rates" paper, we think that the presence of an integrated operator in the market reduces the rate of passthrough and consequent benefits for consumers

The Commission's scenarios are just not realistic

302. The Commission presents two scenarios, which it suggests bracket reality:
- The best case (Factual 1) features 170%²⁹ passthrough over 2006-2010 – This represents not just full passthrough by existing operators of MTR price cuts, but firms go further and reduce prices all the way to cost. Firms are expected to compete away both the entire MTR price cut

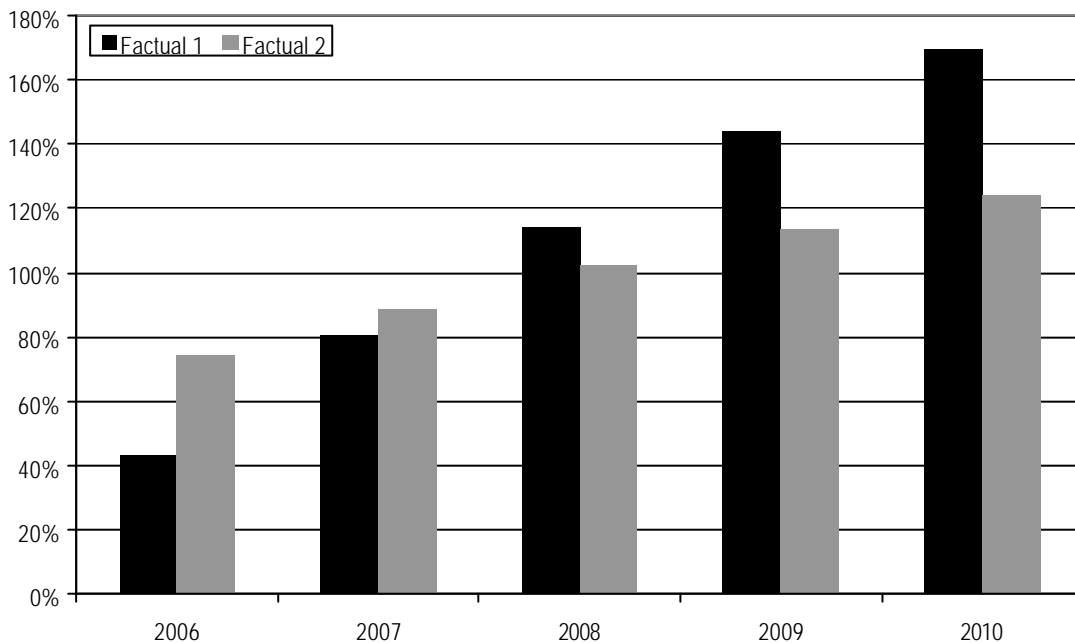
²⁹ A fall in the MTR from 27 cpm to 16 cpm is associated with a reduction in the FTM average price from 40.49 cpm in 2005 to 21.82 cpm in 2010. Passthrough is $(40.49 - 21.82) / (27 - 16) = 170\%$.

margin, as well as the margins they have been earning for at least the last five years on FTM calls.

- The worst case (Factual 2) has 124%³⁰ passthrough – This is only slightly more modest, with passthrough rising to 100% in 2010. In our view it is misleading to present this scenario as 100% passthrough, because in fact it involves retail price cuts larger than the MTR price cut.

303. Both scenarios represent extremely high rates of passthrough. We consider that the first is only a theoretical possibility. The probability of perfect competition emerging in the retail FTM and toll calling market is so low that we suggest that this scenario should be discarded entirely.

Figure 4: Commission's predicted passthrough rates by year



Source: Covec calculations from tables 13 and 14 in the Draft Report
The data underlying this graph is in Table 18

304. Given the data the Commission presents on passthrough rates over time, it would be useful for it to explain what happened to reduce the rates of passthrough in the late 1990s. There has been a big increase in gross margin as MTR rates have fallen. The Commission does not present any explanation on what went on in the market in those years.

We suggest more practical numbers

305. We have developed three scenarios for passthrough:

³⁰ A fall in the MTR from 27 cpm to 16 cpm is associated with a reduction in the FTM average price from 40.49 cpm in 2005 to 26.87 cpm in 2010. Passthrough is $(40.49 - 26.87) / (27 - 16) = 124\%$.

- In the most optimistic (Factual 1) we assume that 100% of the reduction in the MTR rate is passed through into retail FTM prices by 2010. This means retail prices are 30.53 cpm in 2010.
- In the status quo passthrough scenario (Factual 2) we assume no change to passthrough. This means that 65% of the MTR price cut is passed through into retail prices over the five years. Prices fall gradually and reach 34.10 cpm by 2010.
- In our middle scenario (Factual 3) we use the econometric model to predict FTM prices from the MTR rate. This suggests there will be a large reduction in the FTM calling price immediately following regulation, and then the FTM price falls steadily to a 2010 price of 32.78 cpm.

Conditions on access can ensure passthrough

306. If the Commission is determined to regulate MTRs, despite the evidence, then it should make regulated access to lower MTR prices dependent on evidence of passthrough by fixed operators. This would ensure that end-users rather than fixed operators would get the gains from lower MTRs.
307. If the Commission is sure that passthrough will happen anyway, then there is no reason not to require this evidence. The passthrough condition will have no impact. But if passthrough does not happen for whatever reason, then this condition will ensure that fixed operators do not simply pocket the MTR price cut.
308. The Commission seems to consider that conditions on access are not necessary. TelstraClear argues that they are not legal.
309. In our view, section 30 of the Act provides the Commission with broad discretion to impose conditions as part of a determination. Read together with the Commission's duty under section 19 to make a recommendation that "best gives, or is likely to best give, effect to the purpose set out in section 18", Vodafone submits the Commission ought to impose a condition to address the risk that fixed network operators, rather than end-users, prove to be the actual beneficiaries of regulated MTRs.
310. Vodafone suggests that an access seeker's right to access a lower MTR should depend on demonstrating that end-users have actually benefited from lower MTRs in the form of lower average retail prices from that access seeker. This approach does not mandate passthrough to end-users by fixed operators. However, it creates a clear, voluntary incentive structure whereby the Commission could be confident that end-users will be the beneficiaries of MTRs and, ultimately, be sure that the purposes of the Act are being achieved by MTR regulation.
311. The use of conditions in this way is particularly important in the circumstances for two reasons.

- Firstly, the Commission has assumed passthrough rates significantly higher than historical passthrough rates. Without the rate of passthrough dramatically improving, the Commission's overall case for regulating MTRs is quickly undermined.
- Secondly, as the Commission recognises at paragraph 544, "incomplete pass through will advantage Telecom over Vodafone". Providing a condition that will encourage FTM and toll calling operators to passthrough price reductions in regulated MTRs will minimise competitive distortions as between Telecom and Vodafone.

312. We do not think that conditions on access could be categorised as the regulation of prices paid by end-users and therefore outside the Commission's jurisdiction. Meeting the condition remains voluntary and the condition clearly is part of the regulation of supply of telecommunication services between service providers.

313. Vodafone suggests that fixed operators produce evidence to the Commission that their average retail prices have reduced in line with the glidepath reductions in MTRs. Where fixed operators cannot adequately demonstrate lower average prices, they would be ineligible to benefit from the next decrement in the regulated MTR from mobile operators.

The counterfactual starts too high and the fall is too slow

314. The Commission has a rate of 27 cpm as its MTR price for 2005 in the counterfactual falling by 1 cpm per year for the term of the model. The Commission's numbers are too pessimistic, leading it to overstate the benefits of regulation.

The counterfactual rate starts too high

315. The actual rates Vodafone has agreed with Telecom are [] VNZCOI. Our interconnection agreement with TelstraClear [] VNZCOI.

316. We therefore anticipate that for much of the 2005 calendar year the prevailing rate will be [] VNZRI. A weighted average based on the volumes of traffic that Vodafone terminated from Telecom and TelstraClear in the year to the end of March 2004 is [] VNZCOI. We suggest the Commission use this number as the starting point for its counterfactual.

The fall is too slow

317. We anticipate that MTR rates will fall faster than the Commission's 1 cpm per year in the absence of regulation.

318. The table below shows two alternative counterfactuals. One is the number that is generated by the Covec model. It is a more conservative forecast of future MTR rates based on a logarithmic trend. The other follows a CPI-10% path. We suggested that we could commit to such a price path for MTRs in our submission on the Issues Paper.

Table 3: Counterfactual prices (cpm)

| Predicted MTR (cpm) | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Commission | 27.00 | 26.00 | 25.00 | 24.00 | 23.00 | 22.00 |
| Covec | 26.19 | 24.96 | 23.85 | 22.83 | 21.90 | 21.03 |
| CPI-10% | [] VNZCOI | [] VNZCOI | [] VNZCOI | [] VNZCOI | [] VNZCOI | [] VNZCOI |

Source: Covec, Commission Draft Report Table 14

We predict a different path for prices and quantities

319. Covec generates counterfactual prices and quantities and factual quantities using its alternative econometric model of the FTM market.

320. We do not assume a constant elasticity, as the Commission does. Instead the model estimates the demand and supply curves individually. The model incorporates factors that drive both the demand and supply of FTM calls, including the mobile termination rate and the number of mobile subscribers.

321. The counterfactual prices and quantities are produced by forecasting the future paths of the mobile termination rate and the number of mobile subscribers. This produces counterfactual prices that are slightly higher than the Commission's, however the counterfactual quantity is also higher. The main reason for this is that the Commission's model does not take account of the mobile penetration rate as a driver of demand for fixed-to-mobile calls.

Table 4: Counterfactual FTM quantity (millions of minutes)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------|--------|----------|----------|----------|----------|----------|
| Commission | 922.79 | 945.41 | 968.58 | 992.32 | 1,016.64 | 1,041.56 |
| Covec | 985.62 | 1,030.75 | 1,065.98 | 1,094.15 | 1,117.51 | 1,137.70 |

Source: Covec, Commission Cost Benefit Model

Table 5: Counterfactual FTM price (cpm)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------|-------|-------|-------|-------|-------|-------|
| Commission | 40.49 | 38.83 | 37.25 | 35.73 | 34.27 | 32.87 |
| Covec | 40.72 | 39.36 | 38.03 | 36.73 | 35.46 | 34.20 |

Source: Covec, Commission Cost Benefit Model

322. The model is also used to generate quantities under the factual scenarios for a given rate of passthrough. In this case we use the estimated demand curve alone to predict the quantity of fixed-to-mobile minutes. Again this allows us to take account of future increases in mobile penetration as an additional driver of demand for fixed-to-mobile calls. In addition we present a factual scenario in which the response of fixed-to-mobile supply to the reduction in the mobile termination rate is entirely determined by the demand and supply model.

Table 6: Factual FTM quantity (millions of minutes)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------------|--------|----------|----------|----------|----------|----------|
| Commission Factual 1 | 922.79 | 990.05 | 1,056.46 | 1,122.12 | 1,187.16 | 1,251.69 |
| Commission Factual 2 | 922.79 | 1,040.36 | 1,070.24 | 1,099.81 | 1,128.53 | 1,155.65 |
| Covec Factual 1 | 985.62 | 1,041.85 | 1,087.03 | 1,124.03 | 1,155.13 | 1,182.00 |
| Covec Factual 2 | 985.62 | 1,031.48 | 1,067.23 | 1,095.67 | 1,119.03 | 1,138.92 |
| Covec Factual 3 | 985.62 | 1,061.32 | 1,092.75 | 1,117.45 | 1,137.63 | 1,154.87 |

Source: Covec, Commission Cost Benefit Model

Table 7: Factual FTM price (cpm)

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|----------------------|-------|-------|-------|-------|-------|-------|
| Commission Factual 1 | 40.49 | 35.78 | 31.62 | 27.94 | 24.69 | 21.82 |
| Commission Factual 2 | 40.49 | 32.33 | 30.73 | 29.28 | 27.98 | 26.87 |
| Covec Factual 1 | 40.72 | 38.44 | 36.29 | 34.26 | 32.34 | 30.53 |
| Covec Factual 2 | 40.72 | 39.30 | 37.93 | 36.61 | 35.33 | 34.10 |
| Covec Factual 3 | 40.72 | 36.83 | 35.82 | 34.80 | 33.79 | 32.78 |

Source: Covec, Commission Cost Benefit Model

323. The Commission suggests that pre-selection and regulated wholesaling of Telecom's products and services can be expected to increase competition in the retail FTM and toll calling market, and thereby boost passthrough (paras 480 to 482). We do not know how significant these impacts will be but they apply to both the counterfactual and the factual scenarios. On this basis, we have excluded them from our modelling.

324. The Commission recognises that pre-selection and regulated wholesaling, if they increase competition, will do so in the counterfactual scenario as well as the factials. But then it seems to ignore the application to the counterfactual in its conclusion on this point (para 484):

"These factors [pre-selection, regulated wholesaling and MTR price cuts that prevent price squeezes] suggest that ... rates of pass-through are likely to increase over the period under the factual."

325. What the Commission needs to add is that the first two factors will also increase passthrough under the counterfactual. So only any impact of an MTR price cut on incentives or ability to price-squeeze is a relevant difference between the counterfactual and the factials.

16 cents is too low

326. The Commission considers that a robust estimate of the cost of mobile termination is 16 cpm. This is based on price comparisons with five other jurisdictions that report cost-based pricing. The Commission has rejected comparisons with our much larger sample of countries on the basis that their rates are not cost-based.

327. We are not certain that the Commission's numbers are reliable. Obviously there is a lot more work to do before any conclusions will be reached on what

any regulated price might be, since neither the initial pricing principle (which could involve benchmarking) nor any cost-based modelling in accordance with the final pricing principle will be done unless and until triggered by a dispute.

328. Nevertheless, we think that by using the 16 cpm figure as an estimate of costs at this stage, the Commission has overestimated the benefits of MTR regulation. As we point out below, recent work by Vodafone Australia generates a conservative estimate of 20.5 cpm for the costs of termination for Vodafone in Australia. We consider that the price in New Zealand is likely to be materially higher than this.

We are not convinced by the Commission's price comparisons

It is not clear that there is a right answer

329. We are assuming there is such a thing as a correct estimate of costs. But in the commercial world, there is no such right answer, there are only the competing views of different investors. If one investor takes the view that it could provide mobile services more cheaply than the current owners, it has the opportunity to purchase the network or build another and see if it can achieve what it expects.
330. We understand that the Commission must generate a number for the cost of mobile termination in order to do its cost benefit assessment. But we do think it is worth keeping in mind this assumption when thinking about benchmarking prices. There are likely to be substantial differences between different estimates of "costs", precisely because they are estimates that depend on the views of the individual parties involved.
331. Any estimates of costs are also likely to vary dramatically across countries for reasons other than investors' expectations. So it is important to think carefully about how to adjust estimates from other countries for use as estimates of New Zealand costs.

Cost-based prices are not legally required

332. The Commission argues that the intent of the Act is to encourage or promote cost-based access prices (para 61).
333. A schedule to the Act rejects the use of the Baumol-Willig rule for any decisions determining a pricing principle. This is because it can allow the ongoing inefficient recovery of monopoly profits from access seekers. It does not give any guidance on the intent of the Act. And, in any case, it does not follow from the rejection of Baumol-Willing as a pricing principle that Parliament intended that the Commission only ever adopt cost-based prices.

Cost-based prices may not be better

334. We are not convinced that the "cost-based" figures the Commission presents tell us any more about the welfare-maximising price of mobile termination than

the prevailing market prices for MTRs do. The treatment of fixed and common costs lies at the heart of any estimation of efficient service costs for termination. There is no evidence that Commission's figures pay any regard to the demand side of the market, which is a fundamental characteristic of efficient pricing.

335. Two-sided market analysis tells us that attempting to determine the "costs" of serving one side of the market is a futile endeavour. This is because both sides of the market are served from a single platform. In the presence of joint costs, there is no a priori way to determine the costs of any of the services provided separately. The Commission must consider the costs of termination, subscription and origination at the same time.
336. The process of developing a regulatory cost model is also fraught with difficulty. This is especially the case in mobile telephony where there is a high rate of technological change and where fixed and common costs account for a high proportion of total costs.
337. Mobile operators will set prices across all of the services they supply by reference to the incremental costs of each service and the need to recover fixed and common costs across all services. But market prices are not set by welfare economists modelling prices and quantities in a process remote from consumers. Instead they are worked out by an ongoing process of product development and market testing, through which firms learn about how to improve their pricing over time.
338. Actual prices should be expected to reflect differences in elasticities across the different services offered by an MNO. In a workably competitive market, prices should be expected to be broadly cost-reflective. That is, overall prices will not allow an MNO to earn revenue significantly in excess of its costs (including the cost of capital) over the life of its investment.
339. The Commission has rejected the comparison of actual MTRs presented by Vodafone on the grounds that Australian and UK regulators had recently decided to cut MTR rates.
340. Of course both Australia and UK price cuts involve glidepaths, although in the UK a delay in the implementation of the regulation meant that in practice there was no glidepath. In Australia the regulated rate will remain above the 14 cpm rate the Commission quotes in Table 8 until at least 2007. It may even be longer than that before the rate is applied: Vodafone has applied to the Federal Court of Australia for judicial review of the ACCC's Determination, and has recently filed an undertaking that could affect the application of the ACCC's Determination until the undertaking is dealt with. In addition, as in New Zealand, the rate would only apply in the event of a dispute.
341. The Commission also took issue with the fact that the rates cited for at least some countries in the sample are not "cost-based" (para 375). That is to say that, as we recognise, prices have not been regulated to incremental costs in very many countries. The small number of countries that can be called on to

provide estimates just underlies the difficulty of using simple price comparisons to set target prices in New Zealand.

342. Not all countries are moving to LRIC. The German regulator has recently approved Vodafone Germany's MTR rate of 14.32 Euro cpm. It saw this rate as not being excessive compared with an international benchmark against operators from Spain, France, Italy and the UK. The unweighted average of the rates from those countries, and thus the benchmark values for Germany, are 14.93 Euro cpm until 31 August 2004 and 14.02 Euro cpm from 1 September.

The Commission's figures are not reliable

343. We consider our sample of 18 a far more reliable estimate of reasonable costs of mobile termination than the Commission's five country comparison. The Commission draws heavily on the ACCC's research, and considers the same group of countries that the ACCC did. It appears to have taken some of the numbers straight from the ACCC determination without serious attempts to test their provenance or reliability.
344. We find it hard to see how the five numbers tell us anything useful about the likely costs of termination in New Zealand. The five numbers cover a wide range, the cost-basis used to estimate the numbers is not consistent, and there are significant differences in both the operating environments and the assumptions underlying each number that the Commission has not taken into account.
345. Three of the numbers appear to be regulated cost rates.
- The UK figures are LRIC numbers with adjustments for common costs and for the network externality.
 - The Commission states that the Malaysian number is LRIC, although we have no more information on how it was generated.
 - Similarly, from the Commission's work we understand that the South Korean number is based on fully-allocated historic costs.
346. The Australian number was presented by the ACCC as an estimate of the costs of mobile termination in Australia. It is based on a comparison with MTRs in other countries, on a review of data held by the ACCC, on inferences from mobile to mobile pricing, and on market enquiries. It is also the subject of an appeal.
347. We understand that the US Sprint numbers are based on Sprint's own TELRIC cost modelling in New York, California and Florida) using data from 1999.

The Commission has not considered relevant differences

348. Vodafone is concerned about the use of overseas benchmarks, and especially that the benchmarks used are relevant or appropriately adjusted to ensure they take account of differences from the New Zealand mobile market.
349. Other than the currency conversion, it does not seem that the Commission has adjusted the US, UK, South Korean, Malaysian or Australian benchmarks to account for any differences between those markets and the New Zealand mobiles market.
350. There are many things that could mean that a cost figure from another country is more or less applicable to New Zealand. On page 29 we outlined some of these things, including economies of scope and scale, the ratio of coverage to capacity, differences in factor input prices, and differences in terrain.
351. There will also be a range of issues to do with how the cost models in other countries are constructed and how the numbers are derived. These must also be considered in any serious attempt to determine an estimate of costs in New Zealand.
352. Therefore we have concerns about the applicability or reliability of the numbers the Commission has quoted. As a general point, we do not have nearly enough information about these numbers to be confident that they are reliable as a basis for estimating the costs of mobile termination in New Zealand. But we consider that, by using them to derive the 16 cpm figure in its cost benefit analysis without any adjustment, the Commission is likely to have over-estimated the benefits of MTR regulation.
- South Korea has far greater population density, and the three principle mobile operators all have very large subscriber bases (18.5 million, 11.5 million and 5.5 million).³¹ These factors alone may explain why cost-reflective mobile termination rates would be lower in South Korea than in New Zealand.
 - A similar point applies for every other country in the Commission's comparison group: they all have significantly higher populations and their population densities differ from New Zealand. And the size of their markets mean that economies of scale and scope are likely to be much greater there than in New Zealand.
 - We also understand that South Korean firms typically use a declining balance depreciation method that generates very low values for depreciation. These values are likely to be beneath an economic depreciation level, and may explain part of why the number seems so low.
 - Our information is that the Sprint TELRIC numbers have never been approved by a regulatory authority. They are also predicated on a

³¹ ACCC (2004), page 234.

Receiving Party Pays (RPP) model. In our view this means they are not comparable to costs in a Calling Party Pays (CPP) market: at least the optimal allocation of costs will differ between the two systems.

- The TELRIC model is apparently also used to determine termination prices for fixed carriers in the US. While we do not have access to the model, we would be surprised if a cost model that is used for determining fixed termination rates could also be reliably used for mobile termination.
- We understand that the TELRIC model also excludes costs that are not "traffic sensitive", in accordance with the rules of the FCC. On this basis we think that the Sprint numbers exclude fixed and common costs. Given the significant size of these costs in a mobile network, we would question whether this approach is appropriate.
- We are also unclear on why the Commission accepted the TELRIC figures used by the ACCC without comment. It is not clear what exchange rates were used to conversion between the original Sprint numbers and the WorldCom submission to the Swedish regulatory from which the numbers presented to the ACCC were taken.³² Nor is it clear why or how the ACCC converted Sprint's 1999 figures to the 7 to 12 Australian cpm it quotes using exchange rates for the first 10 days for March 2004.³³
- We understand that both fixed and mobile termination rates in the US are significantly lower than in other countries. For example, Verizon's fixed network interconnection rate is 0.18 cpm (US 0.1 cents), as against the 1.13 cpm the Commission has determined as the price in New Zealand. We do not know what drives these rates, but we are concerned that the Commission investigate these issues much more fully.
- We are unsure whether the number from the UK is based on the Analysys model developed for Oftel. We understand that this model has been substantially criticised, including by Vodafone, as part of the investigation of mobile termination regulation in the UK. In particular, mobile operators were concerned that the model was not reconciled to top down cost data to check its validity. Arguments were put that, among other issues, the model significantly understated the true level of fixed and common costs in running a mobile network. Analysys subsequently revised its model significantly, and it has been used in regulatory proceedings in Sweden.
- Despite the Commission's concerns about cost-based figures, the Australian number is not derived from a costing model at all. It is instead an estimate by the ACCC of the costs of mobile termination in Australia. Vodafone Australia's cost modelling suggests that even a conservative

³² WorldCom (2002), page 5.

³³ ACCC (2004), page 233.

estimate of the costs of mobile termination is likely to be substantially higher than the ACCC's 14 cpm.

353. Without having done any comparison work, we do not see how the Commission can hope to use its five cost numbers as even an indication of what the costs of mobile termination might be in New Zealand.

We are concerned that 16 cpm is too low

354. Of course, at this point the Commission is not required to determine the rate to apply to a dispute about access to the mobile termination service in New Zealand. And if benchmarking is to be used as an initial pricing principle, we would expect that the Commission will do a lot more intensive investigation of other rates and seek to adjust them for relevant differences.
355. Nevertheless, the fact that the 16 cpm figure is not the regulated price is not a complete answer by the Commission. We think it likely that the cost of mobile termination in New Zealand is higher than 16 cpm. By using this figure, the Commission has unfortunately overestimated the benefits of regulating.
356. Data on incoming revenues per minute across all of the Vodafone Operating Companies shows that if rates fell to 16 cpm from 1 July 2005, New Zealand would have the [] VNZCOI lowest termination rates of any country in the world in which Vodafone operates.
357. If the Commission is to continue with this simple price comparison methodology, it needs to take a much more rigorous approach to the selection and adjustment of prices to ensure that they do actually say something useful about the costs of mobile services in New Zealand.
358. We are confident that the Commission will understand our concern that the price comparison process be as rigorous as it possibly can be. After all, this one figure is the most important driver of a decision that could lead to Vodafone losing more than [] VNZRI in revenue over the next five years.

We have an alternative source of cost-based data

359. On 26 November 2004, Vodafone Australia submitted an Access Undertaking to the ACCC in relation to the Mobile Terminating Access Service (MTAS). The Undertaking is for 3 years and applies to the supply of the MTAS for voice calls supplied on Vodafone's 2G/2.5G mobile network.
360. The Undertaking proposed a glidepath for mobile termination prices from the current 24.6 cpm for 2004 down in equal decrements to 20.5 cpm for 2007 onwards.³⁴ The 20.5 cpm is based on cost modelling of Vodafone Australia's 2G network (the rates do not apply to 3G).

³⁴ Rates have been converted from A\$0.21 and A\$0.175 using the Commission's exchange rate of NZ\$1 = A\$0.8532.

361. The ACCC will now conduct a public consultation process to determine whether Vodafone Australia's access undertaking is consistent with the legislative criteria and is "reasonable". This will take a minimum of 6 months.
362. The figure of 20.5 cents per minute was derived from cost modelling based on a Fully Allocated Cost (FAC) approach underpinned by current cost asset valuation principles to ensure a closer approximation to forward-looking efficient economic costs. Vodafone Australia considers that the approach adopted:
- was forward-looking to the extent that network capital assets have been re-valued,
 - was conservative since the application of tilted annuity depreciation is likely to underestimate capital costs compared to cash-flow based economic depreciation and a number of cost allocation assumptions are also conservative (in particular, the treatment of customer care costs),
 - was assumed to be efficient, since there is no basis on which to presume – in the face of long-standing competitive pressure – that Vodafone Australia's network architecture and operating expenditure are not efficient, and
 - observed the general principles of robust cost modelling – cost causality, transparency and reconcilability.
363. Vodafone Australia also noted in its Undertaking that its approach represented a far more robust proxy for the forward-looking efficient economic costs of mobile termination on Vodafone Australia's network than the ACCC's "target price". That "target price" of 14 cpm was determined on the basis of conversions of unadjusted overseas cost estimates, and unadjusted historic cost accounting data submitted under the Regulatory Accounting Framework. As Vodafone Australia consistently indicated to the ACCC, it did not consider that either of the approaches provided reasonable guidance as to the forward-looking efficient economic costs of the MTAS, and specifically did not provide "TSLRIC+", a "reasonable estimate of TSLRIC+", or the identification of a "range of reasonable estimates of TSLRIC+".
364. Vodafone Australia also requested Frontier Economics to model the likely welfare-maximising prices for the Service. Welfare-maximising prices involve:
- the adoption of Ramsey pricing principles in allocating fixed and common costs to services; and
 - a mark-up to reflect the presence of network externalities.
365. The results of the modelling by Frontier Economics indicate that the welfare-maximising price for the Service is between 28.1 and 39.4 cents per minute. The estimate of the externality mark up ranged between 4.8 and 8.4 cents per minute whereas the Ramsey mark up for fixed and common costs ranged

between 8.2 and 18.8 cents per minute.³⁵ The range exists due to an acknowledgement of a degree of uncertainty surrounding various input values, in particular elasticities and also market wide fixed and common costs.

366. Vodafone Australia however did not include the outputs of the Frontier analysis explicitly in the prices in the Undertaking. This is because Vodafone Australia wished to ensure an orderly and timely assessment of the Undertaking by the ACCC. Vodafone Australia however stated that welfare-maximising prices for the Service would be most consistent with the statutory criteria and submitted the Frontier analysis to the ACCC has further evidence that the prices it is proposing are very conservative.
367. We see two implications from this work for the Commission's price comparisons:
- At the simplest level it gives another price point for the Commission's analysis.
 - But it also further calls into question the reliability of the very low numbers in the Commission's sample.

Transfers are not relevant benefits

368. The Commission considers that transfers from producers to consumers are an objective of section 18(1). Indeed, they account for most of the net benefits of regulating MTRs.
369. Vodafone believes the Commission has incorrectly dealt with transfers between producers and consumers. In our view they can not be counted as benefits of regulation. We think that counting transfers as benefits is contrary to standard principles of economics and legally highly questionable, and at variance with the approach the Commission normally adopts, and which we agree with.

Counting transfers as benefits is economically questionable

The goal of regulating prices is to eliminate problems caused by private monopoly

370. The concerns about monopoly are economic concerns, not issues of distribution. The welfare gain from regulating monopoly profits is an efficiency gain arising from the elimination of deadweight loss (i.e., from increasing the volume of products and services consumed). It has nothing at all to do with who consumes the services, but rather whether they are produced in the first place.

³⁵ Rates have been converted from A\$0.24 to A\$0.336, A\$0.041 to A\$0.072, A\$0.07 to \$0.16 respectively using the Commission's exchange rate of NZ\$1 = A\$0.8532 from Table 8.

Prices above costs are not an indication on their own of monopoly profits

371. Prices above marginal costs are no indicator of monopoly profits in the presence of fixed and common costs. The Commission has estimated average costs and current prices. This gives no reliable evidence of monopoly profits. They could just be a reasonable return on a risky investment, or a high price compensating for a low price for another service delivered using the same assets.
372. The price and cost data certainly provides no justification for generally transferring the returns for taking risk from investors to end-users. The result of this will be a chilling effect on investments in risky activities.
373. The effect on investment will be more pronounced if the Commission is inconsistent in its treatment of transfers, and in some cases considers them determinative but in other cases does not put great weight on them. Investors will not be encouraged by the Commission's statement in para 67 that "[I]t will be a matter of judgement as to the weight that should be given to distributive issues as against any other relevant factor".

Access regulation in telecommunications is a very blunt instrument for redistributing wealth

374. The Telecommunications Act is not designed as a means to redistribute income between sections of society. Its object is to promote competition.
375. There is also little to favour transfers from investors to end-users on an equity basis. Not all investors are rich, and not all end-users are poor. And the Commission has not done the investigation that would be required to determine the final incidence of the transfers it is contemplating or whether those transfers could be expected to lead to improvements in welfare overall.
376. At the heart of this argument is a more fundamental point, which is that economics normally treats a dollar as being worth a dollar regardless of whose hands it is in. The Commission's approach suggests that a dollar in the hands of end-users is worth a dollar, but that a dollar in the hands of investors or producers is worth less. As we point out above, the prospect of the Commission regulating in order to transfer money from investors to end-users is not something that is likely to greatly hearten investors.

There is scant legal support for the Commission's interpretation in the Act

377. The combined effect of sections 18 and 19 of the Act is to provide a mandatory and exhaustive list of matters to which the Commission must consider and accord appropriate weight or risk challenge in the courts. The mandatory relevant considerations are whether regulation would lead to:
- promotion of competition in telecommunications markets,

- for the long-term benefit of end-users of telecommunications services, and
 - these benefits are to be measured by the net efficiencies to be had from regulation.
378. The Commission cites several statutory references from Schedule 1 of the Act in support of its belief that the scheme and context of the Act means the Commission must explicitly address distributive issues (para 61).
379. However, Section 19(b) of the Act provides that Schedule 1 may be considered only if it is “applicable”. Vodafone submits that in the context of the Commission forming a recommendation to the Minister whether or not to regulate a service, Schedule 1 is not applicable and ought not to be taken into account by the Commission.
380. Schedule 1 is only applicable, and therefore a relevant consideration, where the Commission is asked to make a determination of the terms of access to any designated or specified service once that service has been added to Schedule 1. The words “if applicable” in section 19 are statutory recognition that different considerations arise where the Commission is making determinations and decisions of already regulated services as distinct from, for example, where the Commission is taking the preliminary step of providing a recommendation to the Minister whether or not to regulate a service.

Counting transfers as benefits is also inconsistent with previous practice

381. The Commission has consistently stated that public benefits must be net gains in economic and/or social terms and that transfers of wealth *per se* are not net gains.³⁶
382. The High Court has recently confirmed this approach in *Air New Zealand/Qantas v Commerce Commission*³⁷ where it said (para 241):

“Determinations of authorisation applications under the [Commerce] Act are properly concerned with balancing any efficiency detriments associated with breaches of the statutory competition standard, against any efficiency gains that may result from the business acquisition or contractual arrangement in question. It is the balancing of these real resource impacts on the economy that best serves the long-term interests of consumers. The inclusion of *ad hoc* wealth transfers, which are not losses to society, would destroy the efficiency assessment by assuming additional economic harm to the public benefit of New Zealand. In any event, consumers might well be the ultimate beneficiaries.”

³⁶ Commerce Commission, “Guidelines to the Analysis of Public Benefits and Detriments”, (1997), page 4.

³⁷ *Air New Zealand and Anor v Commerce Commission and Ors*, High Court Auckland, 17 September 2004 (unreported).

383. We can see no compelling reason to depart from established practice under the Commerce Act in the case of the Telecommunications Act. The assessment of which recommendation will best promote competition in telecommunications markets for the long-term benefit of end-users of telecommunication services within New Zealand is consistent with the net public benefit test in the Commerce Act in focusing on the question of efficiency.
384. Vodafone considers that the Commission has failed to adequately demonstrate that Parliament, by virtue of sections 18 and 19 of the Act, intended for the Commission to abandon its orthodox treatment of wealth transfers and identify wealth transfers between producers and consumers as a benefit to adopting regulation in telecommunication markets.
385. Previously we submitted that the Commission was able to consider wealth transfers from producers to consumers as benefits (as the Commission notes in para 65). We have changed our mind based on further consideration of the legal framework underlying the Commission's work. We are not at all convinced by the Commission's legal arguments that counting transfers is intended by the Act.

Only benefits that arise from increased competition count

386. In Vodafone's view the Commission ought only to count the benefits arising from any promotion of competition resulting from regulation. In respect of MTR regulation, any promotion of competition will be reflected in a higher passthrough rate as compared with the historical passthrough rate.
387. This means that the Commission ought not to be counting as a benefit of the proposed regulation the benefits that would have flowed in any case given the historical passthrough rate. The Act only allows the Commission to consider the incremental benefits flowing from an increased passthrough rate.
388. Unless passthrough rates are higher after the regulation, competition will not have been promoted in the retail markets, because the intensity of competition will not have increased.
389. The quantitative analysis of benefits to end-users from regulation is only relevant to the extent that those benefits arise from the promotion of competition.
- If there are no grounds for believing that the historic rate of passthrough will increase, there are no relevant net benefits from regulating.
 - Consumers may indeed benefit, but the Commission needs to show that they benefit more than they would if termination rates were cut and historic passthrough rates applied.

- It is not sufficient to assume, as other carriers submitted, that “a reduction in mobile termination rates would flow through to reductions in fixed-to-mobile prices” (para 458).
- Nor is it sufficient that the Commission be “satisfied that reductions in mobile termination rates in New Zealand are likely to be passed through, wholly or partly, into retail fixed-to-mobile prices” (para 470). Unless, and only to the extent that the Commission has reason to expect that rate of passthrough will increase, section 18 is not satisfied.

Further work on Ramsey prices is needed

390. The Commission does not include any allowance for Ramsey allocation of common costs. It claims that it is too complicated and contentious and that it does not have the necessary data.
391. A Ramsey allocation of fixed and common costs is generally seen as superior to EPMU markups in efficiency terms, and more likely to reflect real world conditions. The argument that Ramsey cost allocation is difficult and contentious is not powerful: the Commission will never have the data if it does not go and get it.
392. Because such analysis requires information from all participants, the Commission is the only party that can possibly undertake such work. As we pointed out in the TSO conference this year, Vodafone Group has developed a model and we would be happy to help the Commission to use it, or to discuss the attributes of any model the Commission builds for itself.
393. Even at the simplest possible level, FTM calls are generally thought more inelastic than mobile subscription and mobile outgoing calling services. Therefore, following Ramsey principles, the relative mark-up on the cost of FTM calls should be greater than that on mobile outgoing calls.
394. If lack of data is the problem, the Commission should obtain the data or make a compensating adjustment in its modelling. The efficient cost of termination does depend on demand conditions, and there are very strong reasons to expect that ignoring these conditions will lead to an under-estimate of the efficient cost of termination. This creates a systematic bias in the Commission’s cost-benefit modelling and leads to unduly aggressive regulation.
395. We also believe that “absence of effective competition” argument is irrelevant to a decision over how to estimate costs. This conclusion follows directly from the given the way the Commission has defined the market. While such a finding might be used to justify regulation, it has nothing to do with the estimation of costs.

396. Frontier Economics estimated the markup for a Ramsey allocation of fixed and common costs for Vodafone in Australia at between 8.2 and 18.75 cpm.³⁸ In our view, the size of these figures gives an indication of the importance of further investigating a Ramsey cost allocation method in New Zealand. Although, of course, there are many reasons why the appropriate numbers for New Zealand would be different to these figures for Australia.

The regulated price should include an allowance for the network externality

397. The network externality reflects the benefit to existing mobile users and FTM callers of encouraging marginal mobile consumers to join the network and keeping them on the network once they have joined.

398. The Commission refers to the externality as encouraging takeup, but argues that it is not big (and there are other offsetting externalities), and that it will be shrinking as mobile penetration grows (paras 417 to 432).

399. In our view, the externality arises from activities to keep existing subscribers on the network as well as attracting them originally. The existence of the externality is not in question. The arguments are as to its size.

400. Ofcom in the UK considered issues around the externality extensively and concluded that a figure of 1.41 cpm was appropriate (using the Commission's exchange rate). We note that the Commission has included this externality in the Ofcom figure for its price comparison without comment apart from noting that it is included (para 380).

401. Frontier Economics estimated the network externality at between 4.8 and 8.4 cpm for Vodafone Australia, as part of the work on the Access Undertaking.³⁹

402. We consider that the Commission is not justified in excluding the network externality from its estimate of the cost of termination.

The modelling of indirect costs is mistaken

403. There are many possible indirect costs from regulation. They include mistake, delay, abuse of the regulatory process through rent seeking, and effects on investment, including deterring competitive behaviour and valuable investments or encouraging undesirable and unsustainable parasitic entry.

404. The Commission makes no attempt to estimate the impacts of these costs in this particular case. Instead its method for estimating indirect costs involves simply reducing the claimed benefits because it may have over-estimated the true cost of mobile termination.

³⁸ Rates have been converted from A\$0.07 and A\$0.16 using the using the Commission's exchange rate of \$1NZ = \$A0.8532 from Table 8.

³⁹ Rates have been converted from A\$0.041 and A\$0.072 using the using the Commission's exchange rate of \$1NZ = \$A0.8532 from Table 8.

405. This approach can not be correct.
406. To see why, consider that the estimate of indirect costs falls from \$81 million under the consumer surplus test (para 505) to \$6 million under the public benefits approach (para 520) under Factual 1.
407. The \$75 million fall in indirect costs does not represent an actual fall in the indirect costs. After all, there is no difference between the two cases in the actual regulation proposed. The only difference is whether transfers from producers to consumers are counted as benefits, and that has no impact on the level of indirect costs at all.
408. The method of calculation also means that the indirect costs of regulation can never exceed the benefits of regulation. This means that only the (low) direct costs of regulation prevent the Commission's model from always generating positive net benefit numbers. We can not understand the reasoning behind this method.
409. We suggest the Commission adopt an alternative means of estimating indirect costs.

There are some technical flaws in the modelling

410. As the attached report by Covec demonstrates, we are concerned with some aspects of the Commission's cost-benefit modelling.
411. First, the Commission uses both an assumption of a linear demand curve and a constant elasticity of demand for fixed-to-mobile calls. However, these assumptions are inconsistent with each other. Elasticity varies along a linear demand curve and falls as price reduces. As Covec shows, to maintain constant elasticity, the Commission's demand curve for fixed-to-mobile shifts over time in such a manner that is counterintuitive.
412. Second, the Commission's modelling of the fixed-to-mobile market is highly simplistic and ignores much of the historical data that is available to it. As Covec demonstrates, this additional data can be fruitfully used to construct a model that explains historic prices and quantities in the fixed-to-mobile market very well.
413. Third, there is a mathematical error in the Commission's calculation of indirect costs in the public benefits case. This results in it underestimating the correct indirect costs and overstating the public benefits.
414. Finally, the Commission's modelling is biased towards producing positive net benefit numbers. As its upper bound on benefits, the Commission presents what would occur if the fixed-to-mobile market transitions to perfect competition (Factual 1), which is certain to benefit consumers greatly. And as its lower bound (Factual 2), the Commission calculates factual prices *relative* to the counterfactual prices using an assumed rate of passthrough. This guarantees that factual prices are lower than counterfactual prices and guarantees that benefits are positive. And, since indirect costs are a proportion

of benefits, the only way that the Commission could generate a negative net benefit number is if the benefits are outweighed by the relatively small direct costs.

IX There are dynamic efficiency risks from this regulation

415. In this section:

- We argue that the Commission should put more focus on protecting dynamic efficiency than on the static benefits that it sees from regulating MTRs.
- We point out that we are not done with investment in our 2G network by any means, so regulation is relevant to its impacts on our incentives to invest.
- We argue that regulating 3G is fraught with risk. There is no evidence of a problem yet. We think that market developments will mean that regulation of 3G termination will never be necessary.
- Regulating 3G too early could impact investment incentives and lead to delays in investment. We outline an estimate of the welfare effects of such a delay in relation to 3G investment. Our point is not that we will delay our investments, but only that if the Commission regulates 3G, it will dull incentives for investment and the negative impacts of that for end-users could be very large indeed.
- We conclude that any reasonable regulator would wait and see on 3G.

The Commission should protect dynamic efficiency

416. Vodafone believes that the Commission is obliged to give greater consideration and weight to the detriment to dynamic efficiency of a recommendation to regulate 2G services. This obligation arises from:

- the “long-term” context in which the Commission must assess benefits to end-users of telecommunications services under section 18,
- the Commission’s own Guidelines⁴⁰, which at paragraph 113 emphasise the importance of dynamic efficiency and ranks dynamic efficiency greater than static efficiencies in promoting competition for the long-term benefit of end-users, and
- statements in the parliamentary debates on the Telecommunications Act 2001 where the need for regulatory incentives that will encourage investment in the telecommunications industry for the long-term benefit of end-users are emphasised.⁴¹

⁴⁰ Commerce Commission, “A Guide to the Role of the Commerce Commission in making access Determinations under the Telecommunications Act”, (28 May 2002).

⁴¹ For example, in a Ministerial Statement on 20 December 2000, Hon Paul Swain stated: “In a highly competitive market like [telecommunications] we need as much market as possible, as much government as necessary. [The regulatory framework] is designed to promote investment in, and competition in such a way that

417. These factors bear on the meaning to be given to the term “efficiencies that will result, or will be likely to result” under section 18(2). Vodafone considers that the Commission has failed in its Draft Report to give due weight to the likely detriment to dynamic efficiency of a recommendation to regulate 2G services.
418. In the Draft Report the Commission is sensitive to the conflict between short-term allocative efficiency gains and longer-term dynamic efficiency implications (para 58):
- “Where there are tensions between short-term allocative efficiency and long-term dynamic efficiency, the Commission takes the view that giving greater weight to the latter will generally better promote competition for the long-term benefit of end-users.”
419. While this is a very sensible approach in theory, we do not think that the Commission has put it into practice in its investigation into mobile termination. We think it has given insufficient weight to protecting dynamic efficiency.

We are not done with 2G yet

420. Vodafone is not looking to replace its network in the move to 3G. Instead, Vodafone is evolving its existing infrastructure. To some extent Vodafone will always be reliant on the 2G network to provide seamless coverage between the 2G and 3G networks. This means that Vodafone will be continually required to maintain and upgrade the 2G network. Ongoing investment in the 2G network (i.e., software upgrades) will be required to provide for technology developments and to provide increased network functionality to enable Vodafone to provide new products and services to our customers.
421. We are still deploying 2G cellsites and there are plans for deployment of around [] VNZCOI new cellsites next year. At approximately \$500,000 per cellsite this is a significant investment. These additional cellsites will provide increased capacity and coverage and increase the quality of the service we provide to our customers. Continued rollout of 2G cellsites has flow on effects for network investment as other network elements must be added to enable the network to function.

Regulating future technologies is risky

Regulating 3G now would be unjustified

422. We agree with the Commission on at least one point in the Draft Report. We do not think that 3G termination should be regulated. We would strongly advise the Commission to maintain this stance, despite the predictable complaints of those with a vested interest in promoting regulation. If the

people decide to invest in, telecommunications in New Zealand, not because of regulation, but because of return on capital”.

Commission really wants to regulate 3G termination, there will be time for that in the future. To do so now would be extremely hazardous.

423. This is because a regulator considering whether to set 3G termination prices faces a number of problems:
- Risk of impact on incentives to innovate – Generally regulators allow investors to capture first-mover advantages in markets without fear of immediate regulation. This ensures that firms have incentives to invest in new services.
 - Risks of regulatory error – There are much larger than usual risks of getting it wrong when dealing with new technologies. Regulators are poorly equipped to make commercial judgements and to undertake cost-benefit analysis when most of the parameters are uncertain.
 - Practical issues – A decision to regulate 3G will require the Commission to choose a 3G termination cost for its modelling, to define some 3G services, and to estimate prices and quantities for those services with and without regulation. There are obvious difficulties in estimating this price in an environment of such uncertainty.
 - The benefits are precisely zero – At this point there are big risks to regulating 3G and no benefits. Vodafone has not even launched 3G services yet. The market is too immature. There are no indications of what prices or costs will be, and no consumers being disadvantaged from 3G pricing. In these circumstances, any regulatory cost is not worth incurring.

One problem is the asymmetry of investment risk

424. Vodafone is taking a big risk investing in 3G. We have estimated consumer demand for 3G services, and calculated our investment profile based on those estimates.
425. We might be right in our expectations of 3G takeup. But, more likely, we will be mistaken. Consumers may not want the services that will become available – our investment might be a failure. Or they may want it far more than we predict.
426. If demand exceeds expectations, we would expect another market participant to complain about the prices of 3G services and, on the logic presented in the Commission's Draft Report, the Commission will set 3G prices at a lower rate than 2G prices. 3G prices will be above 3G costs, among other reasons, to reflect the risk involved in the investment to start with
427. If demand is below expectations, we would expect another market participant to complain about the prices of 3G services and the Commission will set them at the 2G rate. The 2G rate will be the costs of the most efficient technology and the Commission could hardly countenance compensating Vodafone for investing in the inefficient 3G system.

428. This plausible scenario introduces a significant asymmetric risk to Vodafone. If 3G succeeds, the benefits will be handed back to consumers with regulated lower 3G termination rates. If demand for 3G is lower than expected, Vodafone will have to bear the consequences. Of course, if 3G does not succeed, the appropriate response is that we should lose our money. The problem arises if we do not or can not recover revenues to compensate for the risk we have taken on 3G if it succeeds.

Regulating 3G could lead to delays in rollout

429. The same logic that applies to 2G will apply to 3G. So the Draft Report amounts to a decision to regulate 3G at some unspecified future time. The question is how long do firms need to recover their 3G investments, assuming they are successful, before the Commission should step in and reduce prices to costs. This is impossible to determine with hindsight, because the Commission will only be looking at the successful investments (the unsuccessful will have been discontinued).
430. Certainty that 3G will be covered at some point is helpful in clarifying the likely extent of regulation. The question of when 3G will be regulated still remains. The Draft Report suggests that regulation will apply from a point at which most investment has already been made.
431. Poor regulatory decisions have a number of negative impacts. They could inhibit investment in uncertain and costly new technologies, raise the costs of finance to the industry, and delay the experimentation necessary to test new ideas. The costs of delay can be rather high. Hausman (1997) argues that the total cost of delay in the introduction of mobile phones to the US might have been as high as US\$25-30 billion a year.
432. One impact of the Commission's approach could be to delay 3G investments. Note that we are not saying that we will delay our 3G investment as a result of MTR regulation. The point is that the logic in the Commission's report will have a general chilling effect on investments in long-lived infrastructure assets. The Commission's position that the impact of regulation on investment incentives can be dismissed as negligible once most investment has been made will deter future investors. It is important that the Commission appreciates how significant the impact on investments could be.
433. We asked Frontier Economics to use data from our 3G rollout plans to estimate the impact of a delay of one year in the 3G rollout. Because of the difficulties of predicting the future, especially in relation to such a new technology as 3G, we have had to make some simplifying assumptions in order to complete the analysis. We do not put these numbers forward as an actual estimate of the costs of delay. They are purely indicative of the scale of costs and benefits of changes to dynamic efficiency that could be impacted by regulation.
434. The idea is not that we would delay our 3G rollout due to MTR regulation. The object is to demonstrate to the Commission the extraordinary significance of

dynamic efficiency incentives relative to the static gains that are the focus of its analysis.

435. Frontier considers two contrary effects from delay:
- Delay reduces the costs of investment because the costs of inputs fall and experience of 3G in other locations will enable the network here to be rolled out more cheaply.
 - Delay reduces the benefits to end users of 3G services since they must wait for access to 3G services.
436. Frontier uses data from our 3G rollout plan, roughly scaled up to try to give an industry wide view, and our estimates of customer takeup and willingness to pay for 3G services. Frontier concludes that a one year delay in 3G rollout could cause:
- a loss of \$80.5 million in economic efficiency, and
 - a loss of \$105.6 million in consumer surplus.
437. The principle difference between the estimates of consumer surplus and economic efficiency is that the latter does not take into account the savings to mobile operators from delay. The Commission's approach to counting only benefits to end users means that these savings do not count as relevant benefit.
438. The Commission's estimate of the economic efficiency gain from MTR regulation is around \$27 million over five years. As we said, we think that this number is seriously overestimated. But the figures above suggest that even a very large overestimate of the benefits of regulation is likely to be outweighed by dynamic efficiency costs to society if regulation of MTRs were to deter or delay investment. To us the scale of these numbers just emphasises the importance that the Commission must place on protecting dynamic efficiency.

A reasonable regulator would wait and see on 3G

439. In our view, the only reasonable approach is to forebear on regulation of 3G, preferably forever. We are not convinced that regulation of 3G termination will ever be justified. In the short term the impact on investment incentives is too high. Beyond that, termination charges are falling quickly and market developments are reducing their importance.
440. As we pointed out in the course of the TSO determination this year, if the Commission is faced with a choice between the interests of investors in infrastructure and the interests of firms who have chosen to use their capital for other purposes, it should favour the interests of the former. The long-term impacts for end-users of changes to investment incentives are far more significant than static efficiency gains.

X MTR regulation is not in the long-term best interests of end-users

There is no need for regulation

441. We appreciate that the Commission sees high FTM calling prices as a problem that it wants to solve, and that it only has limited means to do so because the legislation does not allow regulation of anything apart from wholesale services.

442. But we think regulating MTRs is unnecessary and counter-productive. The Minister of Communications has made the goals of the Telecommunications Act very clear:⁴²

“The government took the view that a regulatory regime was needed. However we were also aware that too much regulation would stunt the industry, send the wrong investment signals and harm the consumer in the long run. This ‘as much market as possible as much government as necessary approach’, ultimately resulted in last year’s Telecommunications Act.”

443. We think the Commission’s draft recommendation on MTR regulation achieves all the Minister feared would occur from over-regulation. The Commission is in danger of regulating MTRs to try to solve a competition problem in the retail FTM and toll calling market. We say that MTR regulation would not promote competition, but would instead distort mobile market competition, generate negative impacts on mobile consumers, and impact on incentives to invest.

444. We do not think that regulating MTRs will help in resolving any competition problems in the retail FTM and toll calling market. Regulating Vodafone’s MTRs can not prevent Telecom from engaging in any price-squeeze. And we do not see how the Commission can be confident that higher margins will mean more competition or new entry without having considered competitive conditions in the relevant market in more detail.

445. Once the detriments from regulation are taken into account, we think that there are no net benefits from MTR regulation.

If there is to be regulation, the Commission’s proposal needs changes

446. We do not think that a recommendation for MTR regulation is supportable on the facts. But if the Commission is to recommend regulation anyway, it must include certain features in its recommendation. We have discussed these features in the body of our submission and we present them here without prejudice to our view that MTR regulation is not warranted.

⁴² Hon Paul Swain, “Going for Growth – The Government’s Role in Providing Telecommunications in the New Economy”, Press Release, 27 August 2002.

Incentivise passthrough

447. Without passthrough there are no benefits to end-users from this regulation. We think the Commission can impose a condition on access seekers requiring them to demonstrate that they have passed on previous MTR price cuts before they could get access to lower MTR rates.
448. This is a no-lose situation for the Commission. If passthrough eventuates as it predicts, then the access condition provides only a very low hurdle for an access seeker to jump to get access to the MTR rate. But if passthrough does not eventuate, then the access condition provides a simple and voluntary method to give benefits to end-users as a result of MTR regulation.

Include a glidepath for any cuts in prices

449. Benefits for consumers depend on retail passthrough, not on a once-off large cut to MTRs. A more measured approach would involve a staged reduction in MTRs to a conservative target price. This could also help avoid giving Telecom a massive competitive advantage over Vodafone in the mobile market, and over potential new entrants in the FTM and toll calling markets.

Exclude 3G

450. There are no long-term benefits to end-users from regulating 3G at this point, before Vodafone has even started services, and when Telecom has just begun its 3G data services. The effect of regulating 3G would be to deter investments in new technologies, especially those that were the most risky. Even the Commission's currently stated position on the impact of 2G regulation on dynamic efficiency risks deterring investment.
451. We strongly advise the Commission to maintain its draft recommendation not to cover 3G termination.

Do not cover mobile to mobile termination at all

452. There are no benefits to competition from regulating MTM termination. The issues are very different from those that arise in relation to FTM termination. And the Commission has not investigated this issue at all in its Draft Report.
453. FTM termination rates strongly influence MTM rates anyway. This is both because FTM operators use existing rates in negotiations for interconnection and because any significant difference between FTM and MTM rates generates incentives for arbitrage.

Use a cost higher than 16 cpm for the cost/benefit analysis

454. The five cost numbers that the Commission has gathered to support its 16 cpm figure do not give a reasonable range of estimates of the costs of mobile termination in New Zealand. The Commission needs to do far more to ensure that the numbers it chooses are reliable and relevant to New Zealand conditions.

455. Recent cost modelling work from Vodafone Australia yielded a conservative figure of 20.5 cpm.⁴³ As we explained, we think that even this number is likely to materially underestimate the costs of mobile termination in New Zealand.
456. In these circumstances, we think that using 16 cpm as the estimate of the cost of mobile termination in the cost/benefit analysis substantially overstates the benefits of MTR regulation.

Do not cover Vodafone MTRs

457. There is no rationale for regulating Vodafone's FTM rates. The only competition problem the Commission has identified is with Telecom's incentive to price squeeze. That incentive is not affected at all by the rate of Vodafone's MTRs, so it can provide no argument at all for regulating Vodafone.
458. In our view, regulating Vodafone's MTRs is more like price control than competition promotion, and we say that this is not permitted under the Telecommunications Act.

Start some work on Ramsey

459. We find the Commission's ongoing refusal to even countenance doing work on a Ramsey cost allocation model perplexing. Given the strength of the theoretical arguments behind using a Ramsey-based approach, and the Commission's ability to require the relevant information from Telecom and Vodafone, we can see no reason why this work should be delayed any longer.
460. As we have said, we have access to a model that would be suitable to use for this purpose, and we would be more than happy to help the Commission to use it.

⁴³ Converted from \$A0.0175 using the Commission's exchange rate of \$1NZ = \$A0.8532.

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XII Data used in figures

Table 8: Comparison of NZ MTRs with those in Europe and Australia

| Country | MTR (NZD) |
|--------------|-----------|
| Lithuania | 15.73 |
| Norway | 18.69 |
| Finland | 19.35 |
| Czech Rep | 20.39 |
| Sweden | 22.63 |
| Denmark | 23.41 |
| Ireland | 23.51 |
| Iceland | 24.02 |
| Slovak Repub | 24.24 |
| Australia | 24.61 |
| Poland | 25.30 |
| Spain | 25.64 |
| Latvia | 25.70 |
| Austria | 25.87 |
| UK | 26.95 |
| New Zealand | 27.00 |
| Luxembourg | 28.16 |
| Belgium | 28.92 |
| Hungary | 29.47 |
| Germany | 30.33 |
| France | 31.01 |
| Slovenia | 31.18 |
| Italy | 31.62 |
| Netherlands | 32.62 |
| Greece | 35.08 |
| Malta | 35.88 |
| Estonia | 37.31 |
| Portugal | 41.35 |
| Switzerland | 45.07 |
| | |
| Average | 27.64 |
| Median | 26.95 |

NZ\$ 1= €0.4972 = A\$ 0.8532

Sources: IRG (2004) data, Vodafone NZ and AU data

Euro exchange rates is 5 year average to end June from www.oanda.com

Australian dollar exchange rate is the Commission's figure from Table 8 in the Draft Report

Table 9: Motormouth compared to other plans

| Plan | Price per minute | |
|--------------------------------------|------------------|----------|
| | Peak | Off-peak |
| Prepay | | |
| Motormouth | 0.49 | 0.49 |
| Prepay Nights and Weekends | 1.39 | 0.49 |
| Prepay Anytime | 0.89 | 0.89 |
| On Account additional minutes | | |
| Motormouth | 0.49 | 0.49 |
| Get 70 | 1.39 | 0.49 |
| Get 200 | 0.99 | 0.49 |

Source: Vodafone NZ

All amounts are GST inclusive

Price per minute is for calls to Vodafone mobiles and landlines in NZ

Table 10: Recent changes in Vodafone business plans

| Plan | Previous pricing | | | Revised pricing | | |
|--------------|------------------|---------|---|------------------|---------|------------------------------------|
| | Monthly fee | | Per additional minute peak/offpeak (\$) | Monthly fee (\$) | | Per additional minute anytime (\$) |
| | Fixed term | No term | | Fixed term | No term | |
| Mobilise 50 | 45 | 40 | 0.70/0.44 | 45 | 40 | 0.44 |
| Mobilise 100 | 80 | 70 | 0.50/0.40 | 70 | 60 | 0.40 |
| Mobilise 200 | 120 | 105 | 0.44/0.37 | 110 | 95 | 0.37 |
| Mobilise 400 | 190 | 170 | 0.37/0.35 | 190 | 170 | 0.35 |
| Mobilise 750 | 300 | 275 | 0.35/0.33 | 300 | 275 | 0.33 |

Source: Vodafone NZ

All amounts are GST exclusive

Table 11: Changes in average price per minute paid by new customers by segment

| Segment | Fall in price per minute |
|----------------------|--------------------------|
| Prepay | [] VNZCOI |
| On Account consumer | [] VNZCOI |
| SME | [] VNZCOI |
| Corporate/Government | [] VNZCOI |
| Overall | [] VNZCOI |

Source: Vodafone NZ

The [] VNZCOI reflects the difference between the average price per minute for new customers in each segment from August to October 2004 compared with May to July 2003

Table 12: Proportion of customers with rate less than [] VNZCOI by time on network

| Segment | Proportion of customers | | |
|---------------------|-------------------------|---------------|-----------------|
| | < 3 months | 3 to 6 months | 12 to 36 months |
| Business | [] VNZCOI | [] VNZCOI | [] VNZCOI |
| Consumer on account | [] VNZCOI | [] VNZCOI | [] VNZCOI |

Source: Vodafone NZ

Table 13: Index of VFNZ forecast changes in outgoing voice revenue per minute 2005-2011

| Year to end March | Excluding monthly fee | Including monthly fee |
|-------------------|-----------------------|-----------------------|
| 2005 | [] VNZCOI | [] VNZCOI |
| 2006 | [] VNZCOI | [] VNZCOI |
| 2007 | [] VNZCOI | [] VNZCOI |
| 2008 | [] VNZCOI | [] VNZCOI |
| 2009 | [] VNZCOI | [] VNZCOI |
| 2010 | [] VNZCOI | [] VNZCOI |
| 2011 | [] VNZCOI | [] VNZCOI |

Source: Vodafone NZ

Table 14: Impact of Motormouth on costs of OECD low user (USD PPP)

| | Motormouth | No Motormouth |
|----------------------------------|------------|---------------|
| Average | 167 | 168 |
| Median | 174 | 174 |
| Vodafone | 181 | 236 |
| Cheapest | 80 | 80 |
| Most expensive | 265 | 265 |
| Place | 20 | 27 |
| Total | 30 | 30 |
| Percentage > than average | 9% | 40% |
| Percentage > than cheapest | 56% | 66% |
| Percentage < than most expensive | -46% | -13% |

Source: Vodafone NZ calculations using OECD methodology

Table 15: Impact of MTR regulation on operators (Covec Factual 3 versus Covec Counterfactual)

| | 2006 | 2007 | 2008 | 2009 | 2010 | NPV |
|----------------|-----------|-----------|-----------|-----------|-----------|----------|
| Vodafone | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |
| Telecom Mobile | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |
| Telecom Fixed | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |
| Telecom Group | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |
| TelstraClear | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |
| Others | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZR |

Source: Covec modelling

Table 16: Impact of MTR regulation on operators (Commission Factual 2 versus Commission Counterfactual)

| | 2006 | 2007 | 2008 | 2009 | 2010 | NPV |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Vodafone | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |
| Telecom Mobile | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |
| Telecom Fixed | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |
| Telecom Group | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |
| TelstraClear | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |
| Others | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI | [] VNZRI |

Source: Covec modelling

Table 17: Relationship between MTR and retail prices

| Year | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MT rate | 50.00 | 47.00 | 40.00 | 35.00 | 31.00 | 30.00 | 30.00 | 28.00 |
| Other costs | 5.82 | 5.82 | 5.82 | 5.82 | 5.82 | 5.82 | 5.82 | 5.82 |
| Markup | 0.70 | -0.33 | 5.23 | 6.89 | 9.53 | 9.14 | 8.17 | 8.39 |
| Retail price | 56.52 | 52.49 | 51.05 | 47.71 | 46.35 | 44.96 | 43.99 | 42.21 |

Source: Derived from Tables 9 and 11 of Draft Report

Table 18: Commission's predicted passthrough rates by year

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|------------------|-------|-------|-------|-------|-------|-------|
| Factual 1 | | | | | | |
| MT Rate | 27.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| F2M Price | 40.49 | 35.78 | 31.62 | 27.94 | 24.69 | 21.82 |
| Passthrough | | 43% | 81% | 114% | 144% | 170% |
| Factual 2 | | | | | | |
| MT Rate | 27.00 | 16.00 | 16.00 | 16.00 | 16.00 | 16.00 |
| F2M Price | 40.49 | 32.33 | 30.73 | 29.28 | 27.98 | 26.87 |
| Passthrough | | 74% | 89% | 102% | 114% | 124% |

Source: Covec calculations from tables 13 and 14 in the Draft Report