

concept economics



REPORT

**SUBMISSION TO THE
COMMERCE COMMISSION IN
RELATION TO DATA
RECLASSIFIED AS
RESTRICTED INFORMATION**

Public Version

Prepared for:
Two Degrees Mobile
Limited

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Table of contents

1.	INTRODUCTION AND OVERVIEW	1
2.	IMPLICATIONS FOR OUR ASSESSMENT OF THE COUNTERFACTUAL	1
3.	IMPLICATIONS FOR OUR ANALYSIS OF THE WELFARE EFFECTS IN THE MOBILE MARKET	1

1. INTRODUCTION AND OVERVIEW

Following the Commission's decision to classify the entirety of the data provided in response to the Commission's data request as Restricted Information (RI), 2degrees have asked us to consider the impact of the new RI data on the report we previously submitted to the Commission¹. In doing so, we have identified a number of observations that we would have included in our previous report if we had visibility of the full data set at that time – these are discussed below in section 2. We have also rerun our analysis of the increased surplus associated with the mobile market that would result from regulation. We did this by inputting the actual minutes used by customers in place of billed minutes and also incorporated the updated revenue and traffic information provided by Vodafone – see section 3.

Our overall conclusion that there are substantial net benefits from regulation is unchanged, and the additional analysis that we have been able to conduct using the extended data set further confirms our view that in the absence of regulation a new entrant such as 2degrees will be severely constrained in its ability to compete effectively and may well be forced to exit.

2. IMPLICATIONS FOR OUR ASSESSMENT OF THE COUNTERFACTUAL

As was discussed in our previous submission, the manufactured network effect that on-net price discounting creates in combination with above-cost mobile termination rates is a substantial barrier to sustainable entry and expansion in the New Zealand mobile market. Using the increased set of RI data, we were able to examine this effect in more detail. Our findings (discussed below) reinforce our view that the relevant counterfactual is one where the ability of an efficient entrant to compete effectively is severely constrained. Instead, an entrant is likely to be limited to small segments of the market, or ultimately forced to exit.

[TRI, VRI]

3. IMPLICATIONS FOR OUR ANALYSIS OF THE WELFARE EFFECTS IN THE MOBILE MARKET

Using the reclassified data request information we made three changes to the model:

1. updated the Vodafone revenues and minutes with the new data Vodafone has provided;
2. replaced billed minutes with actual minutes; and
3. corrected the source of the volume of Telecom's voice minutes: in carrying out the changes associated with point (2), it became apparent that voice volumes

¹ Concept Economics (28 July 2009), *Assessment of the consumer benefits of mobile termination regulation in New Zealand*.

we had previously used for Telecom were understated. This is because we had assumed that the “total volume from outgoing calls” in the table entitled “Voice Services” included FTM traffic, whereas now that we have access to the full set of data in the table we can see that it did not.

Impact on overall findings

The changes discussed above impact on consumer and total surplus benefits both in the current and future periods. However, the effects of these changes are relatively small and do not change our conclusion that there are significant positive impacts on consumer welfare and overall economic welfare flowing from successful entry by 2degrees. This reinforces the conclusion of the Commerce Commission in its Draft Report that there are sufficient net benefits to support a recommendation to the Minister that regulation of mobile termination be implemented in New Zealand.²

Incorporating this new data into our modelling we estimate that the 5-year NPV of the increase in consumer benefits is in the range of \$0.4b to \$2.3b (previously \$0.5b to \$2.4b), and for total surplus is in the range of \$0.3b to \$1.2b (previously \$0.3b to \$1.3b). Inclusion of a terminal value to account for benefits accruing from regulation beyond 2015 results in a range of \$2.6b to \$14.6b for consumer benefits (previously \$2.7b to \$15.3b), and total surplus is in the range of \$1.5b to \$7.5 (previously \$1.6b to \$8.2b).

Table 1: Increase in surplus for scenario in which voice and data prices fall by 60% in the factual (\$m)

	Counterfactual	
	2degrees exits at end of 2011	2degrees remains in market
<u>5-yr NPV</u>		
Consumer surplus	\$2,302	\$2,199
Total surplus	\$1,165	\$1,104
<u>5-yr NPV + TV</u>		
Consumer surplus	\$14,623	\$13,537
Total surplus	\$7,495	\$6,867

Table 2: Increase in surplus for the scenario in which voice and data prices fall by 30% in the factual (\$m)

	Counterfactual	
	2degrees Exits at end of 2011	2degrees remains in market
<u>5-yr NPV</u>		
Consumer surplus	\$542	\$444
Total surplus	\$311	\$255
<u>5-yr NPV + TV</u>		
Consumer surplus	\$3,584	\$2,566
Total surplus	\$2,042	\$1,483

² Commerce Commission (30 June 2009), *Draft Report on whether the mobile termination access service (incorporating mobile-to-mobile voice termination, fixed-to-mobile voice termination and short-message-service termination should become designated or specified services).*



Price paths

Under the revised data inputs, the starting point for prices is slightly lower. [TRI, VRI]

Table 3: Factual assumptions – prices for voice [TRI,VRI]

There are no significant changes to the SMS and MMS price paths with the revised data, however there are slight reductions in data prices as a result of increased data volumes (Table 4).

Table 4: Revised prices for SMS, MMS and Data [TRI,VRI]

Consumer surplus estimates

Consumer surplus gains are slightly smaller as a lower starting price reduces the amount of the initial allocative efficiency loss and the producer surplus that may potentially be transferred to consumers.

Under the revised data inputs, the NPV of consumer gains is around \$110 million lower in Factual A and around \$20 million lower in Factual B. In counterfactual A1 for example, the allocative efficiency gain is \$23 million lower, and the transfer of producer returns is \$93 million lower (a total change of \$116 million).

Table 5: Consumer surplus estimates – 5-year NPV (2011-2015) \$m

	Voice	SMS	MMS	Data	Total
Factual A					
Counterfactual A1					
Allocative efficiency gain	\$251.9	\$16.2	\$0.2	\$93.7	\$362.0
Transfer of excess returns	\$1,354.5	\$383.7	\$5.0	\$197.1	\$1,940.3
Total increase in CS	\$1,606.4	\$399.9	\$5.3	\$290.8	\$2,302.3
Counterfactual A2					
Allocative efficiency gain	\$228.3	\$14.7	\$0.2	\$84.9	\$328.1
Transfer of excess returns	\$1,305.9	\$366.2	\$4.8	\$193.6	\$1,870.6
Total increase in CS	\$1,534.3	\$381.0	\$5.0	\$278.5	\$2,198.7
Factual B					
Counterfactual B1					
Allocative efficiency gain	\$15.0	\$1.0	\$0.0	\$5.1	\$21.1
Transfer of excess returns	\$363.6	\$102.9	\$1.4	\$53.0	\$520.8
Total increase in CS	\$378.6	\$103.9	\$1.4	\$58.1	\$541.9
Counterfactual B2					
Allocative efficiency gain	\$9.8	\$0.7	\$0.0	\$3.3	\$13.7
Transfer of excess returns	\$300.3	\$84.4	\$1.1	\$44.3	\$430.2
Total increase in CS	\$310.2	\$85.1	\$1.1	\$47.6	\$444.0

Table 6: Consumer surplus estimates - Terminal Value \$000s

	Voice	SMS	MMS	Data	Total
Factual A					
Counterfactual A1					
Allocative efficiency gain	\$1,540,608	\$93,396	\$1,263	\$630,799	\$2,266,065
Transfer of excess returns	\$7,026,336	\$1,893,294	\$25,072	\$1,109,955	\$10,054,656
Total increase in CS	\$8,566,944	\$1,986,690	\$26,334	\$1,740,753	\$12,320,721
Counterfactual A2					
Allocative efficiency gain	\$1,316,718	\$80,144	\$1,063	\$542,203	\$1,940,129
Transfer of excess returns	\$6,567,594	\$1,733,239	\$22,995	\$1,074,448	\$9,398,276
Total increase in CS	\$7,884,312	\$1,813,383	\$24,059	\$1,616,651	\$11,338,405
Factual B					
Counterfactual B1					
Allocative efficiency gain	\$99,938	\$6,184	\$89	\$36,751	\$142,962
Transfer of excess returns	\$2,025,641	\$545,823	\$7,228	\$319,992	\$2,898,683
Total increase in CS	\$2,125,578	\$552,007	\$7,317	\$356,743	\$3,041,645
Counterfactual B2					
Allocative efficiency gain	\$50,146	\$3,197	\$42	\$18,332	\$71,717
Transfer of excess returns	\$1,432,868	\$378,145	\$5,017	\$234,415	\$2,050,445
Total increase in CS	\$1,483,014	\$381,342	\$5,059	\$252,747	\$2,122,162

Total surplus estimates

Total surplus gains are also slightly reduced as there is a smaller allocative efficiency gain (as for consumer surplus) and lower producer gains as a result of thinner margins. Under the revised data, total surplus gains are around \$100 million lower in Factual A and \$30 million lower in Factual B.

Table 7: Total surplus estimates – 5-year NPV (2011-2015) \$m

	Voice	SMS	MMS	Data	Total
Factual A					
Counterfactual A1					
Allocative efficiency gain	\$251.9	\$16.2	\$0.2	\$93.7	\$362.0
Effect of expanding demand on producer surplus	\$519.8	\$38.5	\$0.6	\$244.7	\$803.6
Total increase in surplus	\$771.7	\$54.7	\$0.8	\$338.3	\$1,165.6
Counterfactual A2					
Allocative efficiency gain	\$228.3	\$14.7	\$0.2	\$84.9	\$328.1
Effect of expanding demand on producer surplus	\$502.0	\$37.1	\$0.6	\$236.3	\$775.9
Total increase in surplus	\$730.3	\$51.8	\$0.8	\$321.1	\$1,104.0
Factual B					
Counterfactual B1					
Allocative efficiency gain	\$15.0	\$1.0	\$0.0	\$5.1	\$21.1
Effect of expanding demand on producer surplus	\$197.6	\$14.4	\$0.2	\$77.2	\$289.4
Total increase in surplus	\$212.6	\$15.5	\$0.2	\$82.3	\$310.5
Counterfactual B2					
Allocative efficiency gain	\$9.8	\$0.7	\$0.0	\$3.3	\$13.7
Effect of expanding demand on producer surplus	\$165.0	\$12.0	\$0.2	\$63.7	\$240.9
Total increase in surplus	\$174.9	\$12.7	\$0.2	\$66.9	\$254.7

Table 8: Total surplus estimates for mobile voice - Terminal Value \$000s

	Voice	SMS	MMS	Data	Total
Factual A					
Counterfactual A1					
Allocative efficiency gain	\$1,540,608	\$93,396	\$1,263	\$630,799	\$2,266,065
Effect of expanding demand on producer surplus	\$2,478,499	\$175,254	\$2,914	\$1,406,509	\$4,063,176
Total increase in surplus	\$4,019,108	\$268,649	\$4,177	\$2,037,308	\$6,329,242
Counterfactual A2					
Allocative efficiency gain	\$1,316,718	\$80,144	\$1,063	\$542,203	\$1,940,129
Effect of expanding demand on producer surplus	\$2,327,014	\$165,205	\$2,695	\$1,328,076	\$3,822,991
Total increase in surplus	\$3,643,733	\$245,349	\$3,759	\$1,870,279	\$5,763,120
Factual B					
Counterfactual B1					
Allocative efficiency gain	\$99,938	\$6,184	\$89	\$36,751	\$142,962
Effect of expanding demand on producer surplus	\$1,051,123	\$70,785	\$1,150	\$465,696	\$1,588,754
Total increase in surplus	\$1,151,061	\$76,970	\$1,239	\$502,447	\$1,731,715
Counterfactual B2					
Allocative efficiency gain	\$50,146	\$3,197	\$42	\$18,332	\$71,717



Effect of expanding demand on producer surplus	\$765,607	\$53,114	\$797	\$337,193	\$1,156,71 0
Total increase in surplus	\$815,753	\$56,311	\$839	\$355,524	\$1,228,42 7