



COMMERCE COMMISSION

Brief Summary of Possible Alternative Approach to Modelling Quality as a Driver for TV Demand for NPC Matches (to be read in conjunction with the Commission's letter of 25 May 2006.

1. This note provides a brief summary of the modelling approach the Commission is considering using to estimate the benefits likely to flow to television viewers as a result of players redistributed from strong unions to weak unions, under the factual.
2. The recent econometric study "*What Drives Television Demand for NPC Matches?*" invited interested parties to propose a benefits modelling approach to accommodate the Commission's findings that quality of contest is an important driver of television demand for NPC matches.¹ None of the submissions received addressed this point in any great detail. The NZRU submitted that:

"...the Commission could confidently apply the same quantification formula to the additional benefits to TV viewers from a more attractive game as adopted previously (in Decision 281) and as referred to in the Brown Copeland reports in the absence of any better or even any alternative approach suggested by any interested party".
3. The methodology referred to by the NZRU consists of assuming a possible range of per-viewer benefits (60 cents to \$1.20 per viewer), and multiplying this range by the total number of television viewers of PD NPC matches. There is no empirical basis underlying the assumed range (it relies purely on intuitive judgement), and the NZRU's proposed sanity check for this range involves a comparison of per viewer benefits against the "premium" viewers would pay when hiring out a new release video over a dated video.
4. Notwithstanding that the Commission accepted this approach in Decision 281, the Commission is considering using an alternative, more rigorous approach. The Commission proposes to adapt the original spectator demand model used in the Draft Decision (see paras 653-60; Appendix 3) in order to analyse the effect of higher contest quality, due to the likely redistribution of Super players. In doing so, the Commission ignored the possible effect of non-Super players being re-distributed as the greatest impact is likely to come from the dispersion of players who compete at the international level. The analysis also assumes that television viewers derive no benefit from uncertainty of outcome, as suggested by the results of the recent econometric study mentioned above.
5. The model was adapted by making the following assumptions:
 - the 'marginal fee' for viewing a televised match = zero;
 - the initial horizontal intercept of the demand curve = average number of TV viewers of 1st Division matches (on SKY and TV3) over the age of 5, per match [] viewers);

¹ See <http://www.comcom.govt.nz//BusinessCompetition/Anti-competitivePractices/Applications/ContentFiles/Documents/Television%20Viewership%20Study.pdf>

- the slope of the demand curve = $-4,500$ (comparative static analysis shows that the estimated benefits are fairly sensitive to this assumption; the Commission had to make assumptions about the value of the slope because, unlike in the live spectatorship case considered in the Draft Determination, there is no price data with which to calibrate the demand function). This assumption implies a vertical intercept of \$33.33 (the price at which demand would be forced back to zero if SKY charged for matches on a pay-per-view basis);
 - the full effect of the cap is felt at some unspecified time in the distant future, and the estimated benefits over years 1 to 5 are spread according to the following time profile: 5% of total benefits in year 1, 10% of total benefits in year 2, 15% of total benefits in year 3, 25% of total benefits in year 4 and 40% of total benefits in year 5; and
 - discount rate = 10%, as before.
6. In order to provide some guidance on a sensible range for the assumed increase in demand, the Commission analysed the effect on expected demand if, in the long-run (i.e., at final equilibrium when the full effect of the salary cap is eventually felt some time beyond year 5), the salary cap forced the redistribution of 30% of the Super players from each of the five unions that currently have the *most* Super players in their squads (as at 2006) to the five unions that currently have the *fewest* Super players. This represents a best case scenario, since redistribution from the strongest to the weakest unions is likely to have the greatest effect.
 7. The five unions with the most Super players are Canterbury, Wellington, Auckland, Waikato and Otago. The receiving unions are assumed to be Manawatu, Hawke's Bay, Tasman, Northland and Counties-Manukau. The 30% re-allocation is worked out union by union so, for example, one with 10 Super players would lose 3, and another with 20 would lose 6. The 'transferring' players are allocated amongst receiving unions by assuming that each union secures $1/5^{\text{th}}$ of the total number of transferring players.
 8. The econometric analysis predicted that such redistribution would have a net positive effect on demand (pp.12-3); overall demand falls slightly when a 'strong' contest loses a Super player, but increases more than proportionally when a 'weak' contest gains a Super player. In this analysis, the Commission attempted to quantify this overall increase. The starting point for this analysis was the finding from the econometric study that a 10% increase (reduction) in the total number of Super players involved in a contest would be expected to raise (reduce) match ratings by approximately 0.11 points (see Tables 3 to 6). From this it is possible to estimate the net effect on match demand by examining total Super 12 player participation in every possible round-robin match pairing, post-redistribution.
 9. The Commission found that a 30% redistribution leads to an eventual expected increase in television demand for matches of approximately 8%. This is taken to be the mid-point in the possible range of demand increase.
 10. One might also expect that the redistribution of top players may lead to some transfer of skills to weaker players, via greater exposure to those players during training sessions and in matches. However, there may also be a dampening effect on demand from 'too much' quality. Presumably Super players have such drawing power because they display some rare talent or skill. If such skills become reasonably common (i.e., as non-Super players lift their respective games, relative to Super players), the novelty factor may wear off

somewhat. There could also be a potentially offsetting loss of skills in the teams from which the players transfer. So, the Commission is cautious in how much weight is given to the 'skills transfer' argument. A further margin of 2% is allowed for this possible effect.

11. On this basis, the total range for demand increase is estimated to be zero (i.e., if the improvement in contest quality led to no increase in demand) to 18% (i.e., $2 \times 8\% + 2\%$ margin = 18%).
12. Sensitivity analyses on the model produces the following range for the estimated benefits to television viewers under the proposed arrangements:

		Assumed Slope of Demand Curve		
		-5,500	-4,500	-3,500
Increase in Viewership (%)	0	\$0	\$0	\$0
	10	\$1,825,640	\$2,231,338	\$2,868,863
	18	\$5,915,073	\$7,229,534	\$9,295,115

13. The values reported in the table above represent the total estimated benefits (in present value terms) to television viewers of Premier Division rugby matches that are likely to flow over the first five years under the proposed arrangements.