NERA
ECONOMIC CONSULTING

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MEMO

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DATE:	15 October 2015
FROM:	James Mellsop
SUBJECT:	CWH/NZWSI – Second Draft Determination

1.   Introduction

In respect of the Commerce Commission's Second Draft Determination, you have asked us to:

- Comment on the appropriateness or otherwise of the Commission's decision to model the allocative efficiency effects of the proposed merger for two separate wool scouring demand curves; and

- Model the impact of a gradual price increase on the estimated allocative efficiency and wealth transfer detriments.

2.   Two demand curves

The Commission finds that the merged entity would be able to impose different price increases on:

- Customers with wool destined for export (15%); and

- Customers with wool destined for domestic use, effectively Godfrey Hirst (25%).[1]

These different assumed price increases reflect the Commission's view that there are differing options for each group.

In such circumstances, it is appropriate to define separate customer markets, as the competitive dynamics are distinct. Furthermore, it is appropriate to estimate allocative efficiency effects of the merger on each market separately.[2] In any event, a single market with a properly calculated, weighted average price increase would yield the same result.

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[1]   At paragraph 292, the Commission effectively carves **[REDACTED]** out of this market, because of the **[REDACTED]**.

[2]   In fact, this is effectively what the Commission did in *Decision 725*, when it carved out Godfrey Hirst (and other) volumes from the allocative efficiency calculations – see footnote 106 of *Decision 725*.

3. Effect of gradual price increase

Some of the merchants who the Commission interviewed as part of its investigation suggested that any price increase would occur gradually over time.[3] In fact, at footnote 342 of the Second Draft Determination, the Commission states:

Based on views put forward by merchants and the parties, the Commission considers that an immediate price increase of 15% is unlikely, and any actual price increases are likely to be smaller and incremental over time. However, we have used [an] immediate price increase of 15% as a conservative estimate.

You have asked us to model the impact of a gradual price increase on the estimated (maximum) allocative efficiency and net wealth transfer detriments.

To model this, we have assumed that the scouring price for wool destined for export increases linearly over the first three years to the maximum price increase in the Commission's range.[4] The assumed price path is set out in Table 1 below.

Table 1
Stepped price path assumed for allocative and net wealth transfer detriments

Year	Price increase for wool destined for export
Year 1	5%
Year 2	10%
Year 3	15%
Year 4	15%
Year 5	15%

Source: NERA assumptions

Using this stepped price path, we have re-calculated the allocative efficiency detriment and compared it with the figure presented in the first row of Table 5 of the Second Draft Determination.

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[3] See paragraphs 259 and 262.

[4] We have not made any change to the other price increases assumed by the Commission.

Table 2
Impact of stepped price path vs immediate 15% price increase (wool destined for export)

Allocative efficiency detriment	NPV, 5 years
15% price increase for scouring of wool for export (elasticity = -1)	**[REDACTED]**
Stepped price increase for scouring of wool for export (elasticity = -1)	**[REDACTED]**
Change	**[REDACTED]**

Source: NERA analysis

This demonstrates that adopting a stepped price path lowers the top end of the allocative efficiency detriment by **[REDACTED]**. If the price increase was more gradual, then the top end would reduce even further.

We have also applied this same stepped price path to the net wealth transfer detriment. Because the bottom end of the net benefit range occurs with an elasticity of -1,[5] we use this assumption when analysing the impact of the stepped price path on the net wealth transfer detriment.

While we have not been able to replicate the Commission's transfer calculations exactly (likely due to Godfrey Hirst being split out), the difference is not material.[6] Table 2 below presents the net wealth transfer detriment for wool destined for export using an immediate 15% price increase and the stepped price path set out in Table 1.

Table 3
Impact of stepped price path vs immediate 15% price increase (wool destined for export)

Net wealth transfer detriment	NPV, 5 years
15% price increase for scouring of wool for export (elasticity = -1)	**[REDACTED]**

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[5] While the maximum transfer detriment occurs with an elasticity of -0.5, the maximum allocative detriment occurs with an elasticity of -1. Because the maximum allocative detriment is much larger than the maximum transfer detriment, the bottom of the net benefit range occurs at -1 in this situation.

[6] We have calculated the total range as $2.49 million – $7.56 million compared to the Commission's range of $2.49 million to $7.52 million

Stepped price increase for scouring of wool for export (elasticity = -1)	**[REDACTED]**
Change	**[REDACTED]**

Source: NERA analysis

Therefore, the combined effect of using a stepped price path is to increase the bottom end of the net benefits range by at least **[REDACTED]**.