



COMMERCE COMMISSION

Decision No. 543

Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving:

CARTER HOLT HARVEY LIMITED

and

TENON LIMITED

The Commission: PJM Taylor
DF Caygill
DF Curtin

Summary of Application: The acquisition by Carter Holt Harvey Limited of the structural and wood processing business and assets of Tenon Limited and/or its wholly owned subsidiaries which is based on and includes:

- Ramsey Roundwood;
- Kawerau Sawmill and Remanufacturing Plant;
- Rainbow Mountain Sawmill; and
- Mount Maunganui Plywood.

Determination: Pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance to the proposed acquisition.

Date of Determination: 21 December 2004

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EXECUTIVE SUMMARY

1. A notice pursuant to s 66(1) of the Commerce Act 1986 (the Act) was registered on 2 November 2004. The notice sought clearance for the acquisition by Carter Holt Harvey Limited (CHH) of the structural and wood processing business and assets of Tenon Ltd (Tenon) and/or its wholly owned subsidiaries which is based on and includes:
 - Ramsey Roundwood;
 - Kawerau Sawmill and Remanufacturing Plant;
 - Rainbow Mountain Sawmill; and
 - Mount Maunganui Plywood.
2. For the purposes of the present Application, the Commission considers the relevant markets to be:
 - the North Island market for the production and wholesale supply of roundwood products;
 - the North Island market for the production and wholesale supply of structural timber; and
 - the national market for the production and wholesale supply of structural bracing materials.
3. In the event that the acquisition of Tenon's assets by CHH did not proceed, the Commission is of the view that the appropriate counterfactual scenario is the acquisition of the assets by a third party, which would maintain the status quo.
4. The proposed acquisition would result in a small reduction in the number of players in the roundwood market. Post acquisition, there will remain approximately 19 roundwood producers. The Commission considers that the proposed acquisition is unlikely to lead to a substantial lessening of competition in the roundwood market.
5. In the market for structural timber, the aggregation resulting from the proposed acquisition falls outside the Commission's safe harbours. However, rigorous competition exists between the remaining competitors and this would be likely to continue post acquisition. The Commission considers that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in the structural timber market.
6. The aggregation in respect of the production and supply of plywood falls outside the Commission's safe harbours. The proposed acquisition would result in a reduction of New Zealand plywood producers from 3 to 2. However, the Commission is of the view that plywood does not lie in a market of its own but is part of a number of markets for building materials for particular end-use applications such as flooring construction, building cladding, structural uses in construction, and packaging.
7. Structural bracing for use in timber-framed construction has been identified as a particular end-use application for plywood where there may be few substitutes

in the event of a SSNIP post-acquisition. The particular grade of plywood used for structural bracing is 7mm DD grade treated plywood.

8. The Commission considers that existing competition in the structural bracing market and to a lesser extent, existing competition from products substitutable for DD treated 7mm plywood in other end-use markets, together with the threat of plywood imports, will be sufficient to constrain the combined entity post-acquisition. Therefore, the Commission considers that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in the structural bracing market.
9. On balance, the Commission is satisfied that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition, in:
 - the North Island market for the production and wholesale supply of roundwood products;
 - the North Island market for the production and wholesale supply of structural timber; and
 - the national market for the production and wholesale supply of structural bracing materials.
10. Accordingly, pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by CHH of the structural and wood processing business and assets of Tenon and/or its wholly owned subsidiaries which is based on and includes:
 - Ramsey Roundwood;
 - Kawerau Sawmill and Remanufacturing Plant;
 - Rainbow Mountain Sawmill; and
 - Mount Maunganui Plywood.

TABLE OF CONTENTS

THE PROPOSAL	1
PROCEDURE.....	1
STATUTORY FRAMEWORK.....	1
ANALYTICAL FRAMEWORK.....	2
THE PARTIES.....	2
CHH	2
Tenon	2
Other Relevant Parties	3
<i>Goldpine Industries Limited (Goldpine)</i>	3
<i>Hautapu Pine Products Limited (Hautapu)</i>	3
<i>TDC Sawmills Limited (TDC)</i>	3
<i>Red Stag Timber Limited (Red Stag)</i>	3
<i>Pedersen Timber Company Limited (Pedersens)</i>	3
<i>International Panel & Lumber Ltd (IPL)</i>	3
<i>Plywood Association of Australasia (PAA)</i>	3
<i>Winstone Wallboards Limited (Winstones)</i>	4
<i>James Hardie New Zealand Limited (James Hardie)</i>	4
PREVIOUS DECISIONS	4
INDUSTRY BACKGROUND	5
Roundwood.....	5
Structural Timber	5
Structural Bracing	6
<i>Plywood</i>	6
MARKET DEFINITION	7
Product Markets	7
<i>Roundwood products</i>	8
<i>Sawn timber</i>	8
<i>Plywood</i>	11
<i>Conclusion on Product Markets</i>	14
Geographic Markets.....	15
<i>Roundwood</i>	15
<i>Structural timber</i>	15
<i>Structural bracing materials for use in timber framed construction</i>	16
Functional Market.....	17
Conclusion on Market Definition	17
COUNTERFACTUAL AND FACTUAL	18
Motivation for the Acquisition.....	18
Factual.....	18
Counterfactual.....	18
COMPETITION ANALYSIS.....	19
Roundwood.....	19
Structural Timber	21
Structural Bracing	23
<i>Barriers to Entry and Expansion</i>	27
Co-ordinated Market Power.....	29
OVERALL CONCLUSION <i>Roundwood</i>	29
<i>Structural Timber</i>	30
<i>Structural Bracing</i>	30

DETERMINATION ON NOTICE OF CLEARANCE.....32

THE PROPOSAL

1. A notice pursuant to s 66(1) of the Commerce Act 1986 (the Act) was registered on 2 November 2004. The notice sought clearance for the acquisition by Carter Holt Harvey Limited (CHH) of the structural and wood processing business and assets of Tenon Limited (Tenon) and/or its wholly owned subsidiaries which is based on and includes:
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PROCEDURE

2. Section 66(3) of the Act requires the Commission either to clear or to decline to clear a notice under s 66(1) within 10 working days, unless the Commission and the person who gave notice agree to a longer period. An extension of time was agreed between the Commission and the Applicant. Accordingly, a decision on the Application was required by 21 December 2004.
3. The Applicant sought confidentiality for specific aspects of the Application. A confidentiality order was made in respect of the information for up to 20 working days from the Commission's determination notice. When that order expires, the provisions of the Official Information Act 1982 will apply.
4. The Commission's approach to analysing this proposed acquisition is based on principles set out in the Commission's Merger and Acquisition Guidelines.¹

STATUTORY FRAMEWORK

5. Under s 66 of the Act, the Commission may grant clearances for acquisitions where it is satisfied that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in a market. The standard of proof that the Commission must apply in making its determination is the civil standard of the balance of probabilities.²
6. The Commission considers that it is necessary to identify a real lessening of competition that is not minimal.³ Competition must be lessened in a considerable and sustainable way. For the purposes of its analysis, the Commission is of the view that a lessening of competition and creation, enhancement or facilitation of the exercise of market power may be taken as being equivalent.
7. When the impact of market power is expected to be predominantly upon price, for the lessening, or likely lessening, of competition to be regarded as substantial, the anticipated price increase relative to what would otherwise have

¹ Commerce Commission, *Mergers and Acquisition Guidelines*, January 2004.

² *Foodstuffs (Wellington) Cooperative Society Limited v Commerce Commission* (1992) 4 TCLR 713-722.

³ See *Fisher & Paykel Limited v Commerce Commission* (1996) 2 NZLR 731, 758 and also *Port Nelson Limited v Commerce Commission* (1996) 3 NZLR 554.

occurred in the market has to be both material, and able to be sustained for a period of at least two years.

8. Similarly, when the impact of market power is felt in terms of the non-price dimensions of competition such as reduced service, quality or innovation, for there to be a substantial lessening, or likely substantial lessening, of competition, these also have to be both material and sustainable for at least two years.

ANALYTICAL FRAMEWORK

9. The Commission applies a consistent analytical framework to all its clearance decisions. The first step the Commission takes is to determine the relevant market or markets. As acquisitions considered under s 66 are prospective, the Commission uses a forward-looking type of analysis to assess whether a lessening of competition is likely in the defined market(s). Hence, an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:
 - with the acquisition in question (the factual); and
 - in the absence of the acquisition (the counterfactual).
10. The impact of the acquisition on competition is then viewed as the prospective difference in the extent of competition in the market between those two scenarios. The Commission analyses the extent of competition in each relevant market for both the factual and the counterfactual scenarios, in terms of:
 - existing competition;
 - potential competition; and
 - other competition factors, such as the countervailing market power of buyers or suppliers.

THE PARTIES

CHH

11. CHH is a public company incorporated in New Zealand and listed on the Australian and New Zealand stock exchanges. CHH is 51% owned by International Paper Company. International Paper Company is incorporated in New York and its shares are traded on the New York, Swiss and Amsterdam stock exchanges.
12. CHH is a wood fibre products company and carries on business activities in forests, wood products, pulp and paper, packaging and building supplies. It produces wood products for supply to Australia, America, Asia, Europe and New Zealand.

Tenon

13. Tenon is also publicly listed on the New Zealand stock exchange, and was recently delisted from the Australian and New York stock exchanges. Tenon and its subsidiaries are directly or indirectly majority owned by Rubicon Limited which is a public company listed on the New Zealand stock exchange.

14. Tenon operates a number of wood processing and sawmill facilities located in the central North Island of New Zealand and produces wood products for the Australian, American, Asian, European and New Zealand markets.

Other Relevant Parties

Goldpine Industries Limited (Goldpine)

15. Goldpine is a privately owned company that produces roundwood products for the domestic market. Goldpine's production facility is based in Nelson, and Goldpine has retail outlets through the South Island and as far North as the Central North Island.

Hautapu Pine Products Limited (Hautapu)

16. Hautapu is a privately owned company based in Taihape in the North Island that manufactures and supplies roundwood products to the domestic market.

TDC Sawmills Limited (TDC)

17. TDC is a privately owned company that operates a sawmill in Whangarei. It manufactures and supplies sawn, processed radiata pine to the domestic market, as well as to export markets in the USA and China.

Red Stag Timber Limited (Red Stag)

18. Red Stag is a privately owned company that operates a sawmill at Waipa, near Rotorua. It manufactures and supplies sawn, processed radiata pine and Douglas Fir timber to the domestic market.

Pedersen Timber Company Limited (Pedersens)

19. Pedersens comprises Pedersen Industries and Pedersen Holdings. Pedersen Industries Limited is a contracting company and has a contract with CHH Pulp and Paper to run its chipmills and log yards. Pedersen Holdings Limited is an independent sawmiller with four divisions: a roundwood operation at Kinleith where all product is on-sold to CHH, Lakesawn Lumber sawmill at Taupo which produces MSG timber, a chipmill where all product is on-sold to CHH Pulp and Paper, and a forestry harvesting division.

International Panel & Lumber Ltd (IPL)

20. IPL is a privately owned company based in Greymouth in the South Island of New Zealand. IPL is a manufacturer and supplier of plywood to the domestic market.

Plywood Association of Australasia (PAA)

21. The PAA is an industry driven organization, voluntarily funded by Australian and New Zealand plywood manufacturers. It is used as a vehicle to provide functions that its members cannot effectively provide for themselves. The main areas of operation are quality control and product certification, education and training, market maintenance, standards and codes, research and development, and technical promotion. The PAA provides the Chairperson for the joint Australian/New Zealand Standards Committee, which is responsible for

developing and reviewing product standards for veneer products such as plywood, Laminated Veneer Lumber and other composites. PAA technical staff usually develop the preliminary drafts which are then processed through the official and transparent Standards system prior to being adopted as Australian/New Zealand Standards. The major product standards developed in this manner are:-

- AS/NZS2269 - 1994 Plywood – Structural;
 - AS/NZS2279 - 1996 Plywood – Marine;
 - AS/NZS4357 – 1995 Structural Laminated Veneer Lumber;
 - AS/NZS2270 - 1999 Plywood and Blockboard for Interior Use; and
 - AS/NZS2271 - 1999 Plywood and Blockboard for Exterior Use.
22. Additionally, this Committee is responsible for the preparation of standardised test methods. These methods are published as:-
- AS/NZS2098 Parts 1-10 - 1996 Methods of Test for Veneer and Plywood.

Winstone Wallboards Limited (Winstones)

23. Winstones is a division of Fletcher Building Products Limited, and is a manufacturer and supplier of gypsum plasterboard, drywall systems and associated products and services to the domestic and export markets. Of relevance to this Application is a Winstones product used in structural bracing, Gib Braceline.

James Hardie New Zealand Limited (James Hardie)

24. James Hardie is an international building materials company that manufactures and supplies, amongst other things, fibre cement board. Fibre cement can be used in the exterior and interior of a building, from exterior cladding and internal lining, to fencing, bracing and decorative finishes.

PREVIOUS DECISIONS

25. The Commission has previously considered several markets relating to the production and processing of wood fibre in New Zealand. In Decision 213⁴, plywood was addressed specifically. The Commission considered that the wood-based panels industry should be viewed in the context of the specific end-use markets. In particular, a key end-use market for wood-based panel products was that for the residential flooring construction market.
26. In Decision 431⁵ the Commission adopted a narrower definition. The Commission considered that a narrow market, that for MDF only, was appropriate. The primary reason for the approach taken was that the degree of substitutability between MDF and other wood-based construction products is limited, due to a number of factors including strength, finish and other aesthetics. In particular, the Commission noted that:

⁴ Commission Decision No. 213: Fletcher Challenge Limited / NZ Forest Products, 1987.

⁵ Commission Decision No. 431: Nelson Pine Industries Limited / Rayonier MDF New Zealand, 2001.

while MDF, particle board and plywood are substitutable for each other in many of these interior applications, in general the substitution tends to be one way. In other words, while MDF can be substituted for particleboard or plywood in almost all applications, the reverse is not the case.⁶

27. In Decision 426⁷, the Commission granted clearance for CHH to acquire the shares in, or the assets of, the Central North Island Forest Partnership. In Decision 468⁸, the Commission granted clearance for the acquisition by Fletcher Challenge Forests Ltd of the operating assets of the Central North Island Forest Partnership. In both of these instances, the Commission defined a market for the production and supply of sawn timber in the North Island.

INDUSTRY BACKGROUND

Roundwood

28. Roundwood is manufactured by peeling graded pine logs. This involves removing the bark and some surface wood, and taking off any bumps or swellings to improve the appearance. Most roundwood products are preservative treated - protecting them against insect and fungal attack.
29. Poles are generally the most valuable roundwood product. Poles are used in a variety of applications including retaining walls, marina piles, building foundations, and telegraph poles. Posts are a lower value roundwood and typically are used for agricultural fencing, horticultural structures, and landscaping.

Structural Timber

30. Up until a decade ago, the traditional framing timber available for building domestic and most commercial buildings was supplied to New Zealand Standard NZS 3631 visual grading rules. Visually graded framing is segregated on knot size (the major characteristic influencing strength).
31. More recently, in line with the move by timber producers to supply dry framing, there has been an increase in the availability of machine stress graded (MSG) construction timber. Machine stress grading measures the stiffness of a given piece of timber by passing it on its face, through a machine, which deflects the timber downwards and upwards.
32. Recently, an industry grading and verification regime has been introduced, which is reflected in an amendment to NZ standard NZS3603 and a new recently approved standard NZS3622. NZS3603 establishes the engineering properties attendant to the five MSG grades – MSG6,8,10,12, and 15, two verified visual grades – E8 and E10, and one unverified visual grade – unverified No1. NZS3622 specifies the monitoring and verification process for the verified visual grades.

⁶ Ibid.

⁷ Commission Decision No. 426: Carter Holt Harvey Limited / Central North Island Forestry Partnership, 2001.

⁸ Commission Decision 468: Fletcher Challenge Forests Limited / Central North Island Forest Partnership, 2002.

33. NZS3603 makes a distinction between verified product and unverified product and requires designers to discount the engineering values for unverified No1 by 25%. However, it has also put the MSG8 and E8 at the same performance level and likewise the MSG10 and E10.

Structural Bracing

34. Bracing is required in construction to provide protection from wind and seismic loads. Various materials can be used in bracing applications, depending on the wind and seismic zoning of the area, and the bracing capacity (measured in bracing units) of the material.
35. For the design of timber-framed houses, bracing in accordance with NZS3604 is utilised. The bracing demand is determined from NZS3604 in terms of total bracing units for wind load and seismic load in two directions. The designer then decides which walls are to be bracing walls within the parameters set out in NZS3604 and assigns bracing elements to these walls. In some instances, external wall may be braced on the internal face with a strengthened plasterboard. However, in a few instances, bracing on an internal face with plasterboard alone would be insufficient to satisfy the requirements for the bracing load, and an external bracing element will be required. In these instances a material such as plywood is used on the external face of the external wall. Some external claddings may provide sufficient bracing elements, for instance, fibre cement board cladding may provide bracing capacity such that additional bracing materials are not required.
36. Proprietary bracing wall systems are given a bracing rating in accordance with the P21 test which is administered by approved testing facilities such as BRANZ (Building Research Association of New Zealand) and Forest Research. Various combinations of the sheet product (either external or internal to the frame) and some other products such as angle braces or diagonal light gauge steel straps, are assembled in a full size test wall and are tested under racking loads for a range of displacements in accordance with the test methodology.

Plywood

37. Structural plywood is a series of timber veneers glued and pressed at right angles to each other to form a rigid board. Plywood is graded from A grade being the top grade to D grade being the bottom or lowest grade. B grade is slightly lower than A. C grade has any knots and splits filled and sanded, and D grade can have open knots and splits and can be unsanded. The face grade of plywood is always the first designated:
- AA grade has two A (good) faces;
 - AD grade has an A face and a D back;
 - BB grade has two B (good) faces;
 - CD grade has a C face and a D back; and
 - DD grade has two D (rough) faces.
38. The grade of plywood typically used in structural bracing applications is 7mm DD, which has been treated to ensure resistance from decay and insect hazard.

MARKET DEFINITION

39. The Act defines a market as:
- “... a market in New Zealand for goods or services as well as other goods or services that as a matter of fact and commercial common sense, are substitutable for them.”⁹
40. For competition purposes, a market is defined to include all those suppliers, and all those buyers, between whom there is close competition, and to exclude all other suppliers and buyers. The focus is upon those goods or services that are close substitutes in the eyes of buyers, and upon those suppliers who produce, or could easily switch to produce, those goods or services. Within that broad approach, the Commission defines relevant markets in a way that best assists the analysis of the competitive impact of the acquisition under consideration, bearing in mind the need for a commonsense, pragmatic approach to market definition.¹⁰
41. For the purpose of competition analysis, the internationally accepted approach is to assume the relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry would be able to impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the five dimensions of a market, of which three are discussed below. The temporal and customer dimensions are not discussed in this analysis. The Commission generally considers a SSNIP to involve a five to ten percent increase in price that is sustained for a period of one year.

Product Markets

42. Initially, markets are defined for each product or service supplied by two or more of the parties to an acquisition. For each initial market so defined, the Commission considers whether the imposition of a SSNIP would be likely to be profitable for the hypothetical monopolist. If it were, then all of the relevant substitutes must be incorporated in the market.
43. The greater the extent to which one good or service is substitutable for another, on either the demand-side or supply-side, the greater the likelihood that they are bought and supplied in the same market. The degree of demand-side substitutability is influenced by the extent of product differentiation.
44. Close substitute products on the demand-side are those between which at least a significant proportion of buyers would switch when given an incentive to do so by a small change in their relative prices.
45. Close substitute products on the supply-side are those between which suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk costs, when they are given a profit incentive to do so by a small change to their relative prices.

⁹ s 3(1) of the Commerce Act 1986.

¹⁰ Australian Trade Practices Tribunal, *Re Queensland Co-operative Milling Association*, above note 10; *Telecom Corporation of NZ Ltd v Commerce Commission & Ors* (1991) 3 NZBLC 102,340 (reversed on other grounds).

46. In the present application, the Applicant considers the relevant product markets to be:
- roundwood products;
 - sawn timber;
 - plywood into various end-uses (viewed either as discrete markets or components of a construction materials market) such as:
 - flooring construction;
 - building cladding;
 - structural uses in construction; and
 - packaging.

Roundwood products

47. Roundwood mills in New Zealand (including Tenon's Ramsey Roundwood plant) typically manufacture the following roundwood products:
- fenceposts;
 - poles;
 - piles; and
 - landscaping products.
48. Whilst these products have very different practical end uses, and therefore are not substitutes on the demand-side, a high degree of substitutability does exist on the supply-side.
49. Typically, the same equipment (peelers, cutters, steamers and dryers, and treatment facilities) and log inputs are used to produce all these various roundwood products. Hence, switching production between various roundwood products is relatively speedy and low cost. For this reason, the Commission considers it appropriate, for the purposes of the present application, to define a single product market encompassing all roundwood products.
50. It may be possible to broaden this market to include competing products such as concrete or steel posts, piles, and poles. However, the Commission considers that for the purposes of the present application, the relevant competition effects are suitably identified by restricting the scope of the market to include only roundwood products. The Commission recognises that if competition concerns are not identified within a narrowly defined market, they are unlikely to arise in a more broadly defined market.

Sawn timber

51. Three main categories exist in sawn timber:
- appearance grade timber;
 - structural grade timber; and

- industrial grade timber.
52. The three grades of timber have very different end-use applications. Structural timber is used in building construction, specifically in applications such as frames, lintels, trusses, and joists. The main characteristic differentiating structural timber from industrial grade timber is its superior strength and ability to withstand heavy loads. Sawn timber that doesn't receive the strength rating needed in order to be classified as structural timber is graded as industrial timber.¹¹ Typical uses for industrial grade timber include packaging, pallet manufacture, and furniture backing. The lower load properties of industrial grade timber make it an unsuitable substitute for structural timber on the demand side.
 53. The bulk of the sawn timber produced at Tenon's Kawerau and Rainbow Mountain sawmills, and CHH's Kinleith and Putaruru sawmills, is structural timber.¹² Given that most of the aggregation will lie in the production of structural timber, the Commission considers that any competition issues that may arise following the proposed acquisition will be in respect of the production of structural timber.
 54. Both CHH and Tenon do produce significant quantities of industrial grade timber ([]% and []% of total production, respectively). On this basis, there may be some argument for separately considering the competition issues arising from aggregation in industrial grade timber. However, given that all sawmills producing structural timber would also necessarily produce industrial timber (the latter is simply a by-product of the former), the Commission considers that the competition analysis with respect to both timber grades would be identical. Hence, it is unnecessary, for the purposes of the present application, to carry out a separate competition analysis for industrial grade timber. The Commission recognises that if no competition concerns are identified with respect to structural timber, they are unlikely to arise with respect to industrial grade timber.
 55. One key issue in forming the most appropriate market definition is the degree of fungibility, both on the demand and supply side, between structural timber, appearance grade timber, and industrial grade timber.
 56. On the supply side, it is unlikely that a 5-10% price rise in structural timber would induce processors to switch production away from industrial timber in favour of structural timber. This is primarily because, as discussed earlier, industrial timber is a by-product of the manufacture of structural timber.¹³ Processors would need to alter their log-buying patterns (i.e. purchase greater quantities of high density logs¹⁴ to achieve grade recovery) in order to increase

¹¹ Industrial grade timber is produced from the log core, which typically is not very dense and so is weaker than the peripheral wood.

¹² Tenon does produce some appearance grade timber, however the bulk of this volume is sawn at its mill in Taupo, which does not form part of this proposed acquisition.

¹³ Illustrative of this point is the fact that no sawmill in New Zealand that produces any significant volume of sawn timber specialises entirely in the manufacture of industrial grade timber to the exclusion of all other grades (Kevin Hing, Deputy Director, Timber Industry Federation).

¹⁴ Most industry participants define high density structural logs to be those logs that have a mean density of 440kg per m³ or greater.

their output of structural timber, which is likely to be a costly exercise given the relative scarcity of these quality inputs.¹⁵

57. Appearance grade timber is used for its aesthetic appeal and is produced using pruned logs that offer a high yield of clear wood. Appearance grade timber is typically used to produce decorative mouldings, scotias, etc. Due to the intensive silvicultural regime required to produce pruned logs, appearance grade timber has a high degree of value added upstream and therefore attracts a significant premium over both structural and industrial timber (up to []%, according to Kevin Hing). For this reason, it is highly unlikely that substitution would occur between appearance and structural timber on either the demand or supply side.
58. On the basis that industrial and appearance grades of timber are not readily substitutable (either on the demand or supply side), the Commission considers it appropriate to define a discrete market for structural timber.
59. The Commission also considered the scope for defining separate markets for MSG structural timber and visually graded structural timber. Until recently, processors who produced MSG timber were able to differentiate their product as being superior to visually graded timber on the basis of stricter quality control, and thus command a price premium. Industry participants advised the Commission that most users had historically favoured MSG timber over visually graded timber because of the greater certainty over control offered by the grading system.
60. However, the recent introduction of NZS3622 aims to reduce this perceived quality gap by establishing a voluntary verification process for visually graded timber, which applies equally to machine graded timber. All visually graded timber that is verified according to the amended standard (VSG) will be accorded the same engineering properties as MSG timber. Hence, from a standards viewpoint, MSG and VSG timber will be treated as perfect substitutes for one another.
61. It is possible however that architects, builders, and end users may continue to perceive a quality difference, and therefore individual preferences may dictate that VSG is not a substitute for MSG timber. It is difficult for the Commission to assess ex ante how industry preferences may evolve over the next two years in a dynamic sense, given that the new standards have only recently been introduced. However, industry participants advised the Commission that they expected MSG timber and VSG timber to be treated interchangeably, once the amendment to the standard comes into force, such that end users would be indifferent between MSG and VSG timber.
62. On this basis, for the purposes of the present application, the Commission considers it appropriate to define MSG and VSG timber within the same product market.

¹⁵ In general, high density logs are scarcer in the southern regions of New Zealand than the northern regions.

Plywood

63. Plywood is a product employed in a multitude of uses. On this basis, the Applicant argued that the relevant market with respect to plywood is either the manufacture and supply of plywood into various end uses (flooring construction, building cladding, structural uses in construction, and packaging), or as components into some broadly defined market for construction materials.
64. The Commission considers that the latter – a market for construction materials – would not be helpful in identifying any potential competition concerns, given its breadth. Instead, the Commission considers that a more commercially commonsense approach would be to analyse plywood with respect to specific applications.
65. In the majority of uses for plywood the Commission found numerous substitutes that could constrain pricing or the lowering of quality. However, industry participants consulted by the Commission identified structural bracing as a specific application for plywood where there may be few substitutes in the event of a SSNIP, post-acquisition.
66. A common belief in the construction industry is that plywood generally offers superior bracing strength to other bracing materials, so is the only product used in situations with high bracing demand (e.g. high wind or seismic zones, particularly multiple-storey buildings). Another application where plywood could meet bracing demand better than alternative products is in situations where there is limited surface area on structural walls due to large windows and doors.¹⁶ Some parties considered that plywood is likely to be the preferred material for bracing buildings that have heavy roof (or equally, sub floor and wall) cladding.
67. The Commission therefore considers it appropriate, for the purposes of assessing the competition effects of the proposed acquisition, to focus its analysis on the use of plywood in structural bracing.
68. The Commission considers that the most relevant form of construction for plywood is timber framed construction, since bracing in non-timber framed buildings is typically achieved through steel-reinforced concrete rather than plywood. Hence, the Commission restricted the scope of its analysis to the application of plywood in structural bracing for use in timber framed construction.
69. The Applicant submitted that the majority of plywood used in bracing applications is of a particular thickness (7mm), and of a general purpose DD grade. The results of the Commission's own investigations were consistent with this estimate.¹⁷ The Applicant further submitted that general purpose DD plywood is used in a multitude of applications other than bracing which include DIY, temporary hoardings, and rural farm claddings, for which there are a large number of substitutes. Furthermore, CHH submitted that because the use of

¹⁶ A number of industry participants advised the Commission that there is a trend in New Zealand towards buildings (particularly residential dwellings) with large windows and doorways. Hence, the application of plywood as a bracing material in these situations is becoming increasingly more common.

¹⁷ The New Zealand building standards that govern the use of bracing materials in construction, NZS 3604:1999, specifies that the minimum grade plywood required for bracing applications is 7mm DD.

7mm DD plywood is so varied, the combined entity would have no way of discriminating between customers purchasing plywood for bracing rather than for alternative uses. Therefore, CHH asserted that it would be constrained in raising prices or lowering quality by virtue of the competitive tension provided by the substitutes for plywood in applications other than bracing.

70. However, the Commission's enquiries with building supply chains revealed that of all 7mm DD plywood sold, []% is typically used specifically for construction bracing. Hence, if the combined entity were unconstrained by the presence of substitutes for bracing plywood, it could profitably impose a price rise across all 7mm DD plywood with the likelihood that only []% of users would consider switching to alternative non-bracing materials. Therefore the existence of non-bracing applications for 7mm DD plywood is likely to provide only limited discipline on the combined entity. In addition, plywood producers advised the Commission that 7mm DD grade comprises around 4-5% of total plywood production in New Zealand.
71. The Applicant submitted that there exists a number of close substitutes for bracing plywood that would constrain the combined entity from raising prices or lowering quality. The products identified by the Applicant include:
 - fibre cement sheeting material (e.g. James Hardie Rigid Air Barrier (RAB) or Hardibacker);
 - tempered hardboard sheeting (e.g. Laminex Group Superbrace);
 - plasterboard sheeting (e.g. GIB Braceline); and
 - engineered bracing solutions (e.g. MiTek Lumberlock Flexibrace).
72. Whilst the usage of these materials is highly situation-specific and subject to the individual preferences of end-users, builders, and architects, the Commission found evidence that, in general, some bracing products are more commonly used than others.
73. Plasterboard is by far the most popular bracing material in the construction of timber framed buildings in New Zealand. A number of territorial authorities advised the Commission that virtually all new residential dwellings used some plasterboard for bracing, primarily because it offered multi-functionality as both a bracing and an interior lining material. In comparison plywood is used far less frequently. For example, Jennian Homes estimated that 10-15% of houses use plywood, and Universal Homes, a mid-size housing development company in Auckland, advised the Commission it uses very little plywood as a bracing material.
74. The Commission found that the choice of bracing material is very much dependent on individual tastes, convenience, information availability, and cost. In general, it is the architect or detailer who specifies the material for bracing and often end users have little input into this decision, simply because most are unaware of the possible alternatives. John Ercolano, Associate Director and Architect, Stephenson & Turner, informed the Commission that typically the choice of bracing system for the architect is somewhat secondary to the aesthetic and design appeal of the building.

75. Builders tend to pass on price increases and industry participants generally agreed that end users are unlikely to detect a SSNIP in the price of plywood bracing material since bracing generally contributes such a small proportion to the overall cost of the building. However, the building industry in general is cost-focused and builders often request redesign of buildings with more cost-effective materials.
76. Industry participants informed the Commission that all the potential alternatives to plywood identified by the Applicant have some characteristic weaknesses which may impose switching costs and tend to drive preferences. For instance, Graeme Beattie, Principal Engineer, BRANZ, informed the Commission that plasterboard products do not provide the same high level of bracing capacity as plywood so generally are not used to meet bracing on walls broken up by large windows and doors.
77. In addition, plasterboard is not weatherproof, which means it cannot be installed on the exterior of external walls. John Ercolano advised the Commission that this often meant plasterboard bracing is not used for the bracing of domestic multiple storey construction since it is generally more efficient to brace multiple levels on the exterior of the external wall to avoid the different levels moving independently of one another. However, as discussed below the Commission considers that other weatherproof bracing materials (e.g. hardboard or fibre cement sheets) would be technical and economic substitutes for plywood in these specific instances.
78. Alby Hosie, Managing Director, A.R. Hosie Ltd. (Jennian Homes Franchise) informed the Commission that plywood is generally preferred over plasterboard in instances where a heavy roof cladding is used and therefore greater bracing loads need to be met. Hence, plasterboard may act as a technical substitute for plywood in some bracing applications, but not in others.
79. Ian Page, Building Economist, BRANZ, advised the Commission that whilst fibre cement and hardboard bracing products typically offer quite high bracing units, they can be difficult to install. Both tend to be brittle and susceptible to damage whilst handling and fibre cement products can be heavy, making fastening awkward. For these reasons, some contractors prefer not to work with these materials.
80. However, Tim Weight, Building Inspector, Christchurch City Council, considered that most competent builders would be capable of overcoming any such installation problems, and therefore would not be greatly hindered in switching away from plywood in favour of these alternate materials. Indeed, there is a design trend towards homes with monolithic exterior finishes, such as that provided by fibre cement board and a plaster finish. In such houses, the fibre cement board provides bracing as well as cladding.
81. Whilst, in general, the Commission considers the extent to which products are technically substitutable for one another, what is often of more relevance is the scope for economic substitutability. Even where another product may be technically substitutable for the product in question, its price may be so much higher that it is a poor substitute in an economic sense, at least for most buyers. Hence, the Commission considered the scope for economic substitutability between plywood and other suggested bracing materials.

82. Table 1 presents the relative installed costs of the main potential substitutes for plywood as a bracing material. In particular, the table illustrates the cost of achieving 100 bracing units (BU) using each material identified by the Applicant. This normalisation allows for a clear economic comparison to be made between alternative bracing products, which would otherwise be difficult as the BU (and therefore volume of material used) can vary greatly between materials. The cost of achieving both wind and seismic BU – two factors that can greatly influence the choice of material and final installed cost – are calculated.

Table 1: Comparative installed costs of bracing materials and relativity to H3 treated plywood

Description	Price per 100 Wind BU	% Diff. H3 plywood	Price per 100 Seismic BU	% Diff. H3 plywood
7mm DD grade H3 treated plywood	\$93	0%	\$105	0%
7mm DD grade untreated plywood	\$88	-6%	\$99	-6%
James Hardie RAB 5.5mm	\$102	9%	\$104	-1%
James Hardie Hardibacker 4.5mm	\$83	-11%	\$107	2%
Superbrace 4.75mm	\$80	-14%	\$70	-33%
Lumberlock Flexibrace (600mm)	\$150	61%	\$262	150%
GIB Braceline 10mm	\$55	-41%	\$64	-39%

Notes: Raw indicative installed costs supplied by Rider Hunt Wellington. A standard stud height of 2400mm is assumed. Combination bracing systems are ignored for the sake of simplifying the analysis.

83. Table 1 shows that plywood is one of the more costly bracing materials available. Other materials (such as GIB Braceline, James Hardie Hardibacker, and Superbrace) are significantly cheaper alternatives. This in particular may explain the prevalence of plasterboard bracing over plywood. James Hardie RAB is slightly more expensive than plywood (in achieving wind BU), but would still remain a profitable substitute in the face of a five to ten percent SSNIP in plywood. MiTek Lumberlock Flexibrace is priced significantly higher than the BU equivalent quantity of plywood so cannot be considered an economic substitute.
84. In conclusion, the Commission found evidence of widespread use of bracing materials other than plywood (plasterboard bracing in particular), which is indicative of technical substitutability. Additionally, the Commission found relatively strong scope for economic substitutability between plywood and many other bracing products. On this basis, the Commission concludes that it is appropriate, for the purposes of the present Application, to define plywood used in the specific application of bracing as falling within a market for structural bracing materials for use in timber framed construction.

Conclusion on Product Markets

85. For the purposes of the present application, the Commission concludes the relevant product markets are:

- roundwood products;
- structural timber; and
- structural bracing materials for use in timber framed construction.

Geographic Markets

86. The Commission defines the geographic dimension of a market to include all of the relevant, spatially dispersed sources of supply to which buyers would turn should the prices of local sources of supply be raised.

Roundwood

87. The Applicant submitted that the geographic dimension of the relevant roundwood market may, for the purposes of the present application, be limited to the North Island rather than defining a broader national market. The Commission found merit in this position.
88. Roundwood is a relatively high-bulk low-value commodity, making it uneconomic to transport over long distances. This is evidenced by the very limited flow of roundwood product between the North and South Islands. For instance, Ramsey Roundwood sells only [] % of its total production into the South Island, Hautapu [], and the Applicant no longer sells any roundwood into the South Island.
89. Goldpine, which accounts for approximately [] % of total roundwood sales in the South Island, only sells [] % of its output into the North Island, up as far as Putaruru. []].
90. The high transport costs associated with carting roundwood, and the resulting limited inter-island flow of product, suggest the boundary of the relevant market should not be extended beyond the North Island. Concurrently, the ability of Goldpine and others to move roundwood outside their immediate localities suggests that narrow regional markets (e.g. the central North Island) would be inappropriate in analysing the relevant competition issues. On this basis, the Commission considers it appropriate, for the purposes of the present Application, to define a North Island market for roundwood products.

Structural timber

91. In line with previous Commission Decisions 426 and 468, the Applicant submitted that it was unnecessary, for the purposes of the present Application, to define a national market for sawn timber and that a North Island market would suffice.
92. Having defined a product market for structural timber, as opposed to a broader sawn timber market, the Commission considered whether or not it would be appropriate to define a North Island market for structural timber.
93. Information gathered by the Commission from industry participants indicates that currently the flow of structural timber between the North Island and the

South Island is minimal in terms of the total supply. Kevin Hing, Deputy Director, Timber Industries Federation advised the Commission that Tenon was the only North Island supplier selling structural timber into the South Island, and only a few Nelson-based sawmills (such as South Pine and Waimea Sawmillers) supply very small quantities of structural timber (less than []% of total production in the South Island) into the lower North Island.

94. However, the Commission notes that most sawmills in the South Island export a significant quantity of their sawn structural timber to markets in Australia, Asia, and North America. Consequently, it may be possible for these volumes to be diverted to supply the North Island in the event of a North Island price rise.¹⁸ If this were the case, it would be appropriate to define a national market for structural timber.
95. Acknowledging that there are arguments in favour of both a narrow and broad market, the Commission considers that it would be sufficient, for the purposes of identifying the relevant competition issues associated with the present Application, to define a North Island market for structural timber. The Commission recognises that if competition concerns are not identified within a narrowly defined market, they are unlikely to arise in a more broadly defined market.

Structural bracing materials for use in timber framed construction

96. The Applicant submitted that the broad product markets (flooring construction, building cladding, etc.) into which plywood is supplied are national ones. Having defined the relevant product market as the one for structural bracing materials for use in timber framed construction, the Commission investigated whether or not this market is national.
97. Plywood is a high value-added product which, unlike roundwood, can be transported long distances reasonably economically. The three producers of plywood in New Zealand – CHH, Tenon, and IPL – do have nationwide supply coverage. For instance, IPL (based near Greymouth) sells all grades of plywood from Invercargill to Auckland. IPL estimated that it supplies:
 - []% of all plywood sold between Wellington and Taupo;
 - []% of all plywood sold between the Bay of Plenty and Auckland; and
 - []% of all plywood sold north of Auckland.
98. Additionally, CHH informed the Commission that it sells []% of its total plywood production into the South Island, and Tenon sells []% of its total plywood output into the South Island. Hence, there is a reasonably significant flow of plywood product between the North and South Islands.
99. All three producers informed the Commission that there is presently no variation in wholesale prices for plywood between the North and South Islands.
100. Other structural bracing materials for use in timber framed construction (plasterboard, hardboard, fibre cement bracing) are all distributed through national building merchant chains. The access to nationwide distribution

¹⁸ It is highly likely that the cost of freighting structural timber to the North Island is significantly lower than the cost of freighting to current export markets.

channels means there is significant movement of product between the North and South Islands.

101. All manufacturers of bracing products consulted by the Commission stated that the bulk of their sales ([]%) is concentrated in the North Island.¹⁹ Nevertheless, a significant portion of their product ([]%) is being supplied into the South Island, so supply coverage is nationwide.

102. These manufacturers also advised the Commission that any pricing differential between the North and South Islands is solely attributable to freight costs. [

]. This falls within the 5 to 10% SSNIP threshold the Commission employs when defining markets. Hence, the Commission considers that users in the North Island could profitably substitute product sourced from the South Island (and vice versa) in the face of a SSNIP.

103. In conclusion, there is evidence of reasonably significant flow of bracing materials between the North and South Islands. Furthermore, there is only minor variation in pricing across regions. On this basis, the Commission considers it appropriate, for the purposes of the present Application, to define a national market for structural bracing materials for use in timber framed construction.

Functional Market

104. The production, distribution, and sale of a product typically occur through a series of functional levels, conventionally arranged vertically in descending order. Generally, the Commission identifies separate relevant markets at each functional level affected by an acquisition, and assesses the impact of the acquisition on each.

105. All the firms that supply plywood products, structural timber, and structural bracing materials for use in timber framed construction also manufacture these products. The products are then wholesaled to retail building supply chains (typically large chains such as Placemakers and ITM), who in turn distribute to end users. In general, no manufacturer sells directly to end users.²⁰

106. Some relevant parties have vertically integrated supply chains (e.g. CHH owns a chain retail store, as does Goldpine) however, the aggregation in this instance impacts only at the manufacturing and wholesale levels.

107. Hence, for the purposes of the present Application, the Commission considers the relevant functional dimension of the market to be the manufacturing and wholesale supply level.

Conclusion on Market Definition

108. For the purposes of the present application, the Commission concludes that the relevant markets are:

¹⁹ Industry participants informed the Commission that the concentration of such regional demand is driven by factors such as building trends (e.g. multi-storey construction) and geographic susceptibility to wind and seismic loads.

²⁰ There have been one-off occasions when manufacturers have supplied large contractors directly, but these instances arise very rarely.

- the North Island market for the production and wholesale supply of roundwood products;
- the North Island market for the production and wholesale supply of structural timber; and
- the national market for the production and wholesale supply of structural bracing materials for use in timber-framed construction.

COUNTERFACTUAL AND FACTUAL

109. In reaching a conclusion about whether an acquisition is likely to lead to a substantial lessening of competition, the Commission makes a “with” and “without” comparison rather than a “before” and “after” comparison. The comparison is between two hypothetical future situations, one with the acquisition (the factual) and one without (the counterfactual).²¹ The difference in competition between these two scenarios is then able to be attributed to the impact of the acquisition.

Motivation for the Acquisition

110. In its application, CHH stated:

The acquisition provides CHH with the opportunity to achieve greater economies of scale and extract cost synergies to lower CHH’s overall marginal processing costs. Improving CHH’s cost competitiveness is imperative to ensure the continued value added domestic processing of New Zealand fibre (rather than the export of unprocessed logs), in a competitive industry faced with reducing margins. The benefits of the cost savings will enable CHH to move towards a level of cost competitiveness in line with benchmarked international wood processors, which will ultimately result in lower domestic lumber prices for New Zealand consumers and increased export sales of value added products.

Factual

111. The proposal would give rise to aggregation in each of the three considered markets. In the roundwood market, the two largest participants would combine, reducing the number of market participants from around twenty to nineteen.
112. In the structural timber market the proposal would also give rise to the combining of the two largest players, and reduce the number of major players from five to four.
113. Presently, there are only three manufacturers and suppliers of plywood to the New Zealand market. The proposal would give rise to the aggregation of the two largest participants and leave only two manufacturers of plywood post-acquisition.

Counterfactual

114. Tenon advised the Commission that several other parties have bid on its roundwood, structural timber and plywood assets. []].

²¹ Commerce Commission, *Decision 410: Ruapehu Alpine Lifts/Turoa Ski Resorts Ltd (in receivership)*, 14 November 2000, paragraph 240, p 44.

115. In the event that the acquisition of Tenon's assets by CHH did not proceed, the Commission considers the most likely counterfactual scenario is the acquisition of those assets by a third party, which would maintain the present state of competition.

COMPETITION ANALYSIS

Roundwood

116. Presently there are at least 20 roundwood producers in the North Island. Tenon's Ramsey Roundwood operation is the largest in the North Island with an annual turnover of approximately [] million. It sells predominantly through building supply chains in the North Island, although currently it supplies a limited amount of roundwood to the South Island.
117. CHH has a roundwood facility at Kinleith Industrial Estate. The roundwood peeling plant is owned by Pedersens which toll manufactures roundwood for CHH. The roundwood is treated in CHH's own treatment plant. The available capacity of Pedersen's roundwood operation is [] m3 and the available capacity of the CHH treatment facility is [] m3.
118. CHH chose to exit the South Island roundwood market three years ago and sold its operation to Goldpine. []
119. There are currently four companies supplying the whole of the North Island. These companies are CHH, Tenon, Tuakau Timber Treatment and Hautapu:
- Hautapu sells wholesale to timber or farm merchandise supply chains throughout the North Island. []
 - Tuakau Timber Treatment produces roundwood to sell direct to farmers and other end users. Currently, it is producing [] m3 but has an available capacity of [] m3.
120. Other competitors have excess capacity and the ability to expand their volume and geographic selling area. In particular, the merged entity would face competition from the following competitors:
- Goldpine has the largest share of the South Island roundwood market. At its Golden Downs production plant in Nelson, it produces [] m3 of roundwood per annum. []
 - Permapine, a new entrant in the roundwood market, has been operational only for six months. In that time it has increased its monthly production from [] and has the capacity to produce [] m3 per annum. Permapine is currently custom-treating roundwood for other companies as well as its own.

- Crofts is a large roundwood producer in Northland. Currently, it is concentrating on distributing to the Auckland area. Crofts has the capacity to produce [] m³ per annum and the infrastructure and facilities to supply further down the North Island.

121. Table 2 shows the producers' respective market shares based on volumes produced.

Table 2: Estimated Shares of the North Island Roundwood Market in 2004

Company	Production Volume (m ³)	Market Share (%)
CHH	[]	[]
Tenon (Ramseys)	[]	[]
<i>Combined Entity</i>	<i>[]</i>	<i>[]</i>
Tuakau Treatment	[]	[]
Crofts	[]	[]
Hautapu	[]	[]
Mitchpine	[]	[]
Mt Pokaka	[]	[]
Les O'Leary	[]	[]
Permapine	[]	[]
Goldpine	[]	[]
Others	[]	[]
<i>3-firm ratio pre-acquisition</i>	<i>[]</i>	<i>[]</i>
<i>3-firm ratio post-acquisition</i>	<i>[]</i>	<i>[]</i>
Total	[]	100

122. The combined entity would have a market share of []% post acquisition and the three-firm concentration ratio would be []%. This is within the Commission's safe harbours.
123. In addition, in each region, the merged entity would also compete with smaller local roundwood producers. Throughout the North Island there are regional competitive pockets, for example, Northland and the lower North Island.
124. All industry participants interviewed by the Commission advised that there is vigorous competition in the North Island roundwood market, and that the level of competition is likely to continue post-acquisition.
125. Industry participants advised that the roundwood industry has experienced a degree of commoditisation in recent times such that demand is now essentially driven by price alone.

126. In addition, with respect to potential entry to the market for the production and supply of roundwood, the Commission found that barriers to entry are low as it is possible to invest in a peeling facility and contract out the treatment process.
127. Industry estimates of set-up costs vary depending on the size and sophistication of the plant. A relatively unsophisticated peeling facility would require an investment of approximately \$200,000. Entering the market on a larger scale with a peeler, boiler and equipment such as forklifts and loaders would cost \$1million - \$2 million. Investment in a treatment facility is more costly and requires complex Resource Management Act compliance because of the chemicals used in the treatment process. However, it is not necessary to invest in a treatment facility to compete in the roundwood industry, as there are numerous custom treatment plants throughout the North Island. These are a mixture of operations for which the sole business is custom treatment, and roundwood manufacturers that have the capacity in their treatment plants to treat other companies' product.
128. In conclusion, the Commission considers that post-acquisition, the combined entity is likely to be constrained by existing competition as well as the threat of entry. Therefore, the Commission is of the view that the proposed acquisition is unlikely to give rise to a substantial lessening of competition in the North Island roundwood market.

Structural Timber

129. Presently there are five major players in the North Island structural timber market: CHH (which has mills at Kopu and Putaruru), Tenon (which has mills at Kawerau and Rotorua), TDC at Whangarei, Red Stag at Rotorua, and Pedersens at Taupo. Apart from Tenon's Rainbow Mountain mill at Rotorua, each of the mills is producing MSG timber. Tenon's mill at Rotorua produces VSG timber, as do a multitude of smaller mills spread throughout the North Island.
130. Table 3 shows the estimated market shares of the North Island market for structural timber in the 2003 year.

Table 3: Estimated Market Shares of the North Island Market for Structural Timber in 2004

Company	Production Volume (m³)	Market Share (%)
CHH	[]	[]
Tenon	[]	[]
<i>Combined Entity</i>	<i>[]</i>	<i>[]</i>
TDC	[]	[]
Pedersens	[]	[]
Red Stag Timber	[]	[]
Other	[]	[]
<i>Pre-acquisition 3-firm ratio</i>	<i>[]</i>	<i>[]</i>
<i>Post-Acquisition 3-firm ratio</i>	<i>[]</i>	<i>[]</i>
Total	[]	100

131. Post-acquisition, the combined entity would have a market share of []% and the three-firm concentration ratio would be []%, which is outside the Commission's safe harbours.
132. However, all industry participants interviewed by the Commission, including building supply chains, considered that competition in the market for structural timber is vigorous and would be likely to remain so post-acquisition. Presently, building supply chains purchase their structural timber from a number of suppliers, including some of the smaller operators. The building supply chains were of the view that post-acquisition, the combined entity would continue to be constrained on price and quality by the other market participants and in particular, TDC, Red Stag, and Pedersens.
133. In addition, [] TDC advised the Commission that by the end of 2005, [] Red Stag has been producing MSG timber only since December 2003 and intends to increase its production of that timber. Presently, Red Stag has available capacity of []].
134. With the introduction of the new standard NZS3622, and the amended standard NZS3603, it is likely that visually graded timber (if verified) will compete more vigorously with MSG timber, given that MSG 8 and E8 will be afforded the same rating. To this extent, smaller mills that are currently producing unverified visually graded timber will need only to implement a compliant verification process in order to offer a product substitutable with MSG. Industry participants estimate the cost of implementing such a process to be approximately \$5000.

135. Smaller mills could also install a machine stress grader, although the cost is considerably higher at around \$250,000 to \$500,000. However, industry participants advised the Commission that they expect some of the smaller mills to install machine stress graders in the near future.
136. [] advised the Commission that post-acquisition, existing competitors may have difficulty securing sufficient high density logs in the central North Island region to enable them to compete with the combined entity. There is a limited economical transportation distance associated with the unpruned logs used in the production of sawn timber. Cartage costs of logs have been explored by the Commission in the past, in particular in Decisions 426 and 468. In each of these cases, the Commission found that unpruned logs can be economically transported only within a 100km radius by sawmills, and therefore that the geographic market for those logs was confined to the central North Island region. [] surmised that post-acquisition CHH would have such buyer power that it would be able to either purchase all of the available logs in the central North Island area, or bid prices up so that other sawmills could not compete for such logs.
137. The Commission notes that as a result of recent forestry divestments, there are now a greater number of sellers of high density logs, as well as an increasing demand from a greater number of buyers of such logs.
138. The Commission interviewed forest owners to ascertain whether it would be likely for industry players to have difficulty securing a supply of high density logs post-acquisition. A number of forest owners emphasised their desire for a diversified customer base. A [] forest owner, [], advised the Commission that it preferred to have a number of customers rather than a few large buyers and to this extent would forgo short-term gains from such a scenario to ensure long-term business relationships. In addition, it doubted that CHH would embark on such a scheme as it would be unlikely to have sufficient capacity to process such a volume of logs.
139. Despite [] comments, the Commission considers that the supply of logs in the central North Island is unlikely to be affected by the proposed acquisition.
140. In conclusion, the Commission is satisfied that post-acquisition, the combined entity is likely to be constrained by existing competition from other market participants producing both MSG and VSG timber, such that the proposed acquisition is unlikely to give rise to a substantial lessening of competition in the structural timber market.

Structural Bracing

141. In actual use, structural bracing is provided by a variety of materials including plasterboard sheeting, plywood, fibre cement boards, hardboard sheeting and metal bracing solutions.
142. The proposed acquisition would give rise to a reduction in the number of plywood manufacturers from three to two. Table 4 below shows estimated shares of the plywood segment of the structural bracing market.

Table 4 – Estimated Shares of the Plywood Segment of the Structural Bracing Market for 2004

Company	Production volume of bracing plywood (m³)	Market Share (%)
CHH	[]	[]
Tenon	[]	[]
<i>Combined Entity</i>	[]	[]
IPL	[]	[]
Total	[]*	100

* based on bracing grade plywood constituting [] % of total plywood production

143. Post-acquisition, the combined entity would have a combined segment share of [] %, and the three-firm concentration ratio is 100% both pre and post-acquisition, which is outside the Commission's safe harbours. However, plywood is just one of several materials available for the end-use application of providing structural bracing in timber-framed constructions.
144. The building products industry is a relatively complex industry to assess in competitive terms, overlaid with changing trends in house design tastes, and preferences. The Commission has found it difficult to assess the size of the structural bracing market, given the dual purpose of some bracing materials such as plywood, plasterboard sheeting and fibre cement boards, as well as the varying bracing ratings offered by the various materials and therefore, the varying quantities required. The Commission has had to rely on qualitative evidence from territorial authorities, architects, quantity surveyors, property development companies and builders as to actual use, in order to assess the level of competition in the structural bracing market.
145. The Commission was advised by these parties that where the bracing material is not also acting as the cladding material, plasterboard sheeting is used in 85-90% of situations, plywood in 5-10% of situations and other systems such as fibre cement board, hardboard, and metal bracing strips in around 5% of situations. The Commission understands that plywood is used as a bracing material in around 25% of timber-framed structures in New Zealand.
146. Winstones, the manufacturer of Braceline, advised the Commission that it did not consider that it faces competition from plywood, as plywood is only used in situations where it is not feasible to use its product, Braceline. However, this was not confirmed by other parties that the Commission interviewed.
147. Braceline was introduced to the New Zealand market in 1986, and in that time has been successful in positioning itself as the market leader, taking market share from other bracing materials and systems, including plywood. Presently, in approximately 85-90% of situations where stand-alone bracing is required in new dwellings (and where in some instances, plywood could have been used equally as well), systems other than plywood (notably Braceline) are being used, largely because of their cost-effectiveness. Any attempt by plywood

manufacturers to increase the price of bracing grade plywood, would be likely to eventuate in a loss of plywood sales in those situations where plywood and Braceline can equally be used and are economic substitutes. To this extent, it is likely that Braceline and plywood provide a degree of competitive constraint on each other.

148. Golden Homes, one of the largest 'group housing' companies in New Zealand, is currently a large user of plywood bracing. Steve Walker, its principal draftsman, advised the Commission that there are several effective substitutes for plywood, citing Braceline and Flexibrace as particular examples. He did not consider there were any situations in Golden Homes' designs where plywood bracing was unable to be easily and economically substituted.
149. Mr Walker cited cost as a major driver for substitution, as bracing is a component of a house not readily valued by the end user (because it is hidden), and he confirmed that a 5 – 10% increase in the price of plywood would cause Golden Homes to re-evaluate bracing options. Mr Walker also advised that Winstone regularly pitches for a greater share of Golden Homes' bracing volumes, in place of plywood.
150. To the extent that there may be some bracing situations where plywood is the preferred option, the Commission considers it unlikely that plywood manufacturers can determine when those situations occur. Therefore, they are unlikely to be able to price discriminate accordingly (on the theory that plywood has some degree of market power as a result of its preference in those situations). Because plywood is used in a multitude of bracing situations, in respect of some of which an alternative is available, the price over the entire category (segmentation and discrimination not being possible) is likely to be competitively constrained.
151. Graeme Beattie of BRANZ advised the Commission that in his opinion, in those situations where plywood is the preferred bracing option, fibre cement boards are the most likely substitute for plywood in the event that the price of plywood increased. As discussed in the market definition above, although fibre cement is a more difficult material to handle, most competent builders would be capable of overcoming any installation problems.
152. The Commission also notes the prevalence of new homes where fibre cement board has been used as a cladding, and deduces that the builders who have built those homes have overcome any technical installation difficulties associated with fibre cement board.
153. A number of industry parties noted the increasing use of metal bracing systems. The Commission understands that the Flexibrace system has been introduced in the last 12 months and while this product is not currently an economic substitute for plywood in bracing applications, it is gaining acceptance by designers and builders alike.
154. In summary, discussion with builders and other industry participants has confirmed that there is a substantial degree of substitution between various materials used in bracing situations, and the choice of material depends on a variety of factors such as price, preference, and ease of use. The Commission considers that other competitors in the structural bracing market would provide a constraint on the merged entity.

155. The Commission also notes that 20% of bracing grade plywood is used in other applications such as cladding where wooden battens are fixed to plywood for aesthetic effect, DIY uses, cladding for calf shelters and internal garage linings. As plywood suppliers cannot know the actual purpose for which plywood is purchased, in the event that plywood manufacturers raised prices post-acquisition, they would risk losing this proportion of their sales to other products that compete with plywood in other end-use building applications. To this extent, the Commission considers that suppliers of products for other end-use building applications would provide a degree of constraint on the combined entity.
156. The Applicant submitted that imported plywood provides constraint on locally made product. Independent Building Supplies (IBS) is an Auckland based company that has previously imported plywood from Chile. The plywood that it imported did not have a bracing rating in New Zealand but IBS advised that the mill was more than capable of achieving such a rating with little difficulty. [
-] The mill is due to commission a new expansion this month and would possibly have some capacity to supply the New Zealand market.
157. [
-].
158. The Commission is also aware that Chinese plywood is being sold into the New Zealand market, although it understands that the Chinese plywood is of inferior quality and typically sold for packaging uses.
159. The Commission interviewed the PAA in order to determine the likelihood of imports complying with the various standards required for plywood used in bracing applications. The PAA advised the Commission that presently Indonesian and Malaysian plywood is sold into the Australian market for, amongst other things, the end-use application of structural bracing. This plywood is stamped as AUS/NZ2269 compliant and as such, complies with the building code. The certification process undertaken by the PAA audits plywood products to ensure that they comply with the standard but at this stage certification is not mandatory. The PAA said that it knew of one Chinese mill that had applied to an agency for certification.
160. The PAA was of the opinion that although Chinese plywood presently being imported into Australia was of inferior quality to Australian made or other imported products, it would be a matter of only two to three years before it became a significant competitor in the Australian market. This is partly because of the large capacity of Chinese mills and the associated need to find new markets.
161. In addition, the PAA stated that, in its view, once the Chilean mill commissioned its new expansion, it was possible that more Chilean plywood could be imported into Australia. The PAA concurred with IBS that the Chilean mill is well-capable of producing structural grade ply for the New Zealand

- market, although they advised that such a product would be a fall-down from the type of ply it is producing for the North American market.
162. The PAA advised the Commission that landed prices of plywood imported into Australia are on a par with or below Australia made plywood.
 163. The Commission also spoke to Boral Hancock, Australia's largest producer of plywood []. Boral Hancock advised that Australian plywood manufacturers are capacity constrained to such an extent that imports make up 55% of the Australian market. Of the total plywood imports into Australia, 50% is imported from New Zealand and the remainder from China, Southeast Asia and South America.
 164. Boral Hancock confirmed that the plywood from Southeast Asia is of a comparable quality to Australian and New Zealand plywood and that New Zealand plywood manufacturers would be aware of its existence in the Australian market. It was the view of Boral Hancock that Southeast Asian and Chilean plywood of bracing grade could be imported into New Zealand relatively quickly but that it would take two to three years before Chinese plywood would be of sufficient quality to be sold as a bracing material. However, Boral Hancock sees China as a significant threat after that time, when it has addressed its quality issues. Therefore, the Commission is of the view that the threat of imports is likely to pose a moderate constraint on the merged entity.
 165. On balance, the Commission considers that existing competition in the structural bracing market, existing competition from products substitutable for DD treated 7mm plywood, and the threat of imports, are likely to be sufficient to constrain the combined entity in its pricing and quality, post acquisition.

Barriers to Entry and Expansion

166. Industry participants advised the Commission that greenfields entry into the market for the production of plywood in New Zealand would require significant investment in plant and machinery to the value of approximately \$100 million. IPL and Boral Hancock considered that greenfields entry into the market for the New Zealand production of plywood is unlikely.
167. The Commission has also considered whether barriers to expansion exist for the only competitor for plywood production in New Zealand. IPL owns the brand name "tuffply" and produces [] m3 per annum. IPL is currently running at [] % of its total available capacity. IPL is unlikely to consider expansion due to the high cost of capital and issues involving the location of its site. Thus, the merged entity is unlikely to face a constraint from the expansion of IPL.
168. Juken NZ Ltd (JNL) is the New Zealand division of Japanese owned company, Juken Nissho Ltd, which operates four wood processing facilities in New Zealand. It has facilities in Masterton and Gisborne which primarily produce Laminated Veneer Lumber (LVL) but also currently produce a small amount of plywood. The plywood produced in these mills is very different to the product produced by CHH, Tenon and IPL. Rather than full sheets, the plywood is cut up into smaller pieces for use in specific applications and exported to Japan where it is used in stairs, base flooring, shelving, and kitchen cabinetry. A very small amount of plywood makes its way into the New Zealand market but this is downgraded product which is found

- to be unsuitable for the Japanese market and is not up to the standard of bracing grade plywood in New Zealand.
169. The main objective of the New Zealand division of JNL is to serve the needs of the Japanese parent company and thus, 90-95% of the product produced in the JNL mills goes to the Japanese market. Mike Fisher, General Affairs Manager JNL, advised the Commission that the company is focused on Japan and does not see the New Zealand market as a potential opportunity for expansion. The proposed acquisition has not excited interest from the Japanese Board of Directors. The Commission considers that the entry of JNL into the New Zealand plywood market is unlikely.
 170. Nelson Pine Industries is a Nelson based producer of LVL, which has been operating since 1986. In 2002 it commissioned a [] LVL plant, from which it currently produces a small amount of plywood. This plywood is of a lower grade than other plywood produced in New Zealand and is suitable only for applications such as concrete boxing and shuttering. Managing Director Murray Sturgeon advised the Commission that although it is able to manufacture plywood using its current LVL continuous press, it would not be profitable for Nelson Pine to switch production of this facility from LVL to plywood, as the plywood product is of a much lower value. Thus, Nelson Pine would be unlikely to enter the market for plywood.
 171. In the broader market for structural bracing for use in timber-framed construction, entry is more likely. Set-up costs will vary depending on the extent to which the new entrant has production facilities already set up for the manufacture of construction materials, and the type of product with which it wishes to enter the market. To comply with the building code, a new product simply needs to satisfy the P21 test by BRANZ to act as a bracing material. The P21 test involves three replicated tests of a manufacturer's bracing system and costs \$3000-\$4000.
 172. The successful entry of a new bracing material may be hindered by the reluctance of builders to use new products. Builders tend to use materials they are familiar with, and it usually takes time for a new product to be accepted and extensively used by them. However, there has been recent evidence of new entry. A James Hardie product called RAB (Rigid Air Barrier) Board and Mitek's Flexibrace were both introduced into the market in the last 12 months as alternative bracing systems, and appear to be gaining acceptance.
 173. Tim Arlott, Jennian Homes General Manager, advised the commission that if the price of plywood went up, other manufacturers would likely see this as an opportunity to enter the market for bracing and would look at obtaining a bracing rating for their product by getting it tested to the P21 standard.
 174. In summary, JNL and Nelson Pine Industries are unlikely to become significant suppliers of plywood to the New Zealand market. IPL is capacity constrained and is unlikely to expand, and there are high capital costs associated with greenfields entry. Therefore, the Commission considers that it is unlikely that there will be either new entry in the production of plywood in New Zealand or expansion by the other existing supplier of plywood.
 175. However, there is evidence of recent entry in the market for structural bracing for use in timber-framed construction. The Commission considers that the

potential entry of new bracing systems is likely to provide a moderate constraint on the merged entity.

Co-ordinated Market Power

176. An acquisition may lead to a change in market circumstances such that either co-ordination between the remaining businesses is made more likely, or the effectiveness of pre-acquisition co-ordination is enhanced. The Commission is of the view that where an acquisition materially enhances the prospects for any form of co-ordination between businesses in the market, the result is likely to be a substantial lessening of competition.
177. The proposed acquisition would give rise to a reduction in the number of plywood manufacturers from three to two. The Commission also notes that []].
178. However, as previously noted, it appears that there is not a market for plywood as such, but rather plywood is a participant in markets for materials for certain end-use building applications such as cladding, structural bracing, and packaging.
179. To this extent, the Commission considers that any attempt by CHH and IPL, the two remaining manufacturers of plywood, to co-ordinate their behaviour in order to raise prices is likely to be thwarted by the degree of constraint provided by competing products in each of the end-use application markets in which plywood participates, as well as the degree of constraint offered by the threat of imports.
180. In addition, given that plywood and plasterboard sheeting are presently the most commonly used materials for bracing, the Commission has examined the likelihood of the manufacturer of plasterboard sheeting and the combined entity co-ordinating their behaviour in order to raise prices. However, the Commission considers that given the various situations in which these materials are utilised, and the varying volumes required in those situations, co-ordination on pricing would be difficult. Furthermore, both materials face competition from other structural bracing materials.
181. To this extent, the Commission is of the view that the proposed acquisition is unlikely to enhance the ability of any of the participants in the structural bracing market to co-ordinate their behaviour in respect of pricing.

OVERALL CONCLUSION

Roundwood

182. The proposed acquisition will give rise to a small concentration in the roundwood market, which falls inside the Commission's safe harbours. Post-acquisition there will remain around 19 roundwood producers in the market. The Commission considers that there will remain sufficient competition such that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in the roundwood market.

Structural Timber

183. In the structural timber market, the aggregation brought about by the proposed acquisition falls outside the Commission's safe harbours. However, strong competition exists between the remaining competitors, which the Commission considers will continue post-acquisition. Therefore, the Commission is of the view that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in the structural timber market.

Structural Bracing

184. The degree of concentration which would occur in respect of the production and supply of plywood also falls outside the Commission's safe harbours. However, the Commission is of the view that plywood does not lie in a market of its own but is part of a number of markets for building materials for particular end-use applications such as flooring construction, building cladding, structural uses in construction, and packaging.
185. Structural bracing for use in timber-framed construction has been identified as a particular end-use application for plywood where there may be few substitutes in the event of a SSNIP post-acquisition. The particular grade of plywood used (DD treated 7mm) accounts for around 4-5% of all plywood production in New Zealand. In addition, plywood is used as a bracing material in approximately 25% of all houses built in New Zealand. In a small proportion of those instances where plywood is used as the bracing material, there are few appropriate bracing materials which could be substituted. In other bracing applications, plywood has a greater number of economic and technical substitutes which provide moderate constraint on plywood as a structural bracing material.
186. The Commission considers that it would be difficult for plywood suppliers to price discriminate against those buyers of plywood for use in situations where there are few substitutes. In addition, about 20% of all DD treated 7mm plywood is used for applications other than bracing. Therefore, post acquisition, a moderate constraint would be provided by other competitors in the structural bracing market, as well as from other materials in alternative end-use markets.
187. While entry into local plywood production is presently unlikely within the relevant timeframe, plywood manufacturers and other suppliers of structural bracing materials face potential competition from plywood imports, particularly from Chilean and Southeast Asian plywood. Chinese plywood is also expected to be a competitor in the structural bracing market within two to three years.
188. The Commission considers that it is unlikely that there will be either new entry in the production of plywood in New Zealand or expansion by the other existing supplier of plywood. However, the threat of potential entry in the broader market for structural bracing for use in timber-framed construction is also likely to pose a moderate constraint on the merged entity post acquisition.
189. The Commission has also considered whether the proposed acquisition may give rise to an enhanced ability for the combined entity to co-ordinate its pricing behaviour with the other plywood producer, IPL. The Commission is of the

view that these firms would be unlikely to be able to co-ordinate their pricing because of the presence of competing bracing materials such as Braceline.

190. In addition, the Commission has assessed the likelihood of co-ordination between the combined entity and the supplier of plasterboard bracing products, but regards that scenario as being unlikely due to the different volumes required of each material in bracing applications. The Commission also considers that both products would be constrained to some degree by other bracing materials and systems.
191. On balance, the Commission considers that existing competition in the structural bracing market and to a lesser extent, existing competition from products substitutable for DD treated 7mm plywood in other end-use markets, together with the threat of plywood imports, will be sufficient to constrain the combined entity post-acquisition. Therefore, the Commission considers that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition in the structural bracing market.
192. Accordingly, pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by CHH of the structural and wood processing business and assets of Tenon and/or its wholly owned subsidiaries which is based on and includes:
 - Ramsey Roundwood;
 - Kawerau Sawmill and Remanufacturing Plant;
 - Rainbow Mountain Sawmill; and
 - Mount Maunganui Plywood.

DETERMINATION ON NOTICE OF CLEARANCE

193. Pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Carter Holt Harvey Limited of the structural and wood processing business and assets of Tenon Limited and/or its wholly owned subsidiaries which is based on and includes:

- Ramsey Roundwood;
- Kawerau Sawmill and Remanufacturing Plant;
- Rainbow Mountain Sawmill; and
- Mount Maunganui Plywood.

Dated this 9th day of February 2005

PJM Taylor

Division Chair

Commerce Commission