NZ Forestry Future Prospects amid Global Forestry Forces in Key Export Wood Markets

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[or, sub title]
The Future ---
The Queen Mary 2
or
The Titanic ?
But the $$ have not been in forestry but in cement and silver

STCM — Kazakhstan Cement
SVM — Silver in USA-Mexico

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The latest DANA “must have” publications

The International Pulpwood Resource and Trade Review 2009 Edition
The industry's perception of itself in 2005

Possible reasons for “special” forest industry challenges

- What is different between the NZ forest industry and:
  - Most other NZ land based industries
  - Many overseas sectors and industries, and industry associations?
- Part of the answer – for debate --
  - NZ Forest Industry displays almost no NATIONALISM or NATIONAL PRIDE
  - Restricted sense of need for greater industry good
  - Little sense of reliance on internal supply chain for the industry to work effectively
  - Limited international supply chain opportunities for many players
- This creates a special challenge – is this the result of the industry structure in 2005?
- But perhaps there is cause for hope – formation of a new wood processing association and WoodCo in late 2005

Source: DANA Consortium, FIDA presentation to Minister, 12 July 2005
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Some Major Drivers of Future Industry Performance

- The Global Position of Wood
- Exchange Rates
- NZ harvest rates vs profitable markets
- Japanese, Korean and Chinese, and other log demand, 1980 - 2010 Projected
- Australian lumber self sufficiency and competition – and MSG
- NZ - Australian MDF-LVL situation
- The USA Market
- Subsidies, the Global Reality
- China and Russia
- New NZ Players and their behaviour
- Conclusions

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Changing global wood balance perceptions

- 1985-95
  - Looming global shortage of wood, or at least major regional shortages
- 1996-2000
  - No shortages on the horizon, but perhaps out 20 years or so, e.g. Haglar 1997.
- 2001-2004
  - No shortages, perhaps ever. Technology, substitution will overcome any problems.
- 2005 (DANA)
  - More uncertainty coming back into predictions. The scale of China and India’s potential to dominate world raw material demands, oil, iron ore and coal price surges, and some regional price surges occurring. But still plenty of wood on global scale, especially in next five years.
The growth of sawn timber demand internationally had slowed from 1988 - and substitution remains a real threat.

![Global Industrial Wood Demand, 1961 to 2004](chart)

There is, and will be for some time too much sawn timber production capacity.

- In 2004, global production of sawn timber was approximately **268 MMCM**, but consumption amounted to only **258 MMCM**.

- Excess supply was a particular problem in Europe, where there was an oversupply of 16 MMCM.  
  - Finnish lumber production only 12 MMCM

*Source: Finnish Forest Industries Federation.*
The global growth of panel products – especially MDF and OSB has far outstripped the growth of sawn timber

Population = +36%
Sawnwood = +26%
Wood panels = +93%

For example, the global growth of MDF has been phenomenal (RISI 2004 data in million m3) --- see NZ-Australia later
FX seems to drive our lives

Long-term NZ-US FX rates have fallen. So we should be in for (yet) another correction downwards --- Right?
But since our FX was floated in 1984, the trend is actually positive, so where do we go from here? On March 8 we were about on trend-line. But, major directional changes nearly always overshoot, so maybe we are actually headed for a period below the trend line.

\[
R^2 = 0.0043
\]

So, what is the “truth” about FX predictions

- The Chief Economist of the Bank of New Zealand (BNZ Weekly Overview dated 21 October 2004) *Forecasting exchange rates is impossible –*.

- “We do our (NZD consensus) annual examination of the performance of economists in picking the NZD over the past eight years. Our analysis shows you can safely say exchange rate forecasts will almost always be wrong – in fact they have only been right looking a year ahead four times in the past eight years using monthly observations. That’s a 4.3% success rate.”

- “We are wrong 95.7% of the time. Worse, the forecast of the direction of change in the coming year was correct for only 45 of the 83 months covered. That’s a success rate of 54% - about what you would expect from a monkey tossing a coin.”

- “All exchange rate forecasts are born useless and die the same way.”
And bankers are not the only ones with wonky dartboards

“Analysts have predicted a downturn in (the USA) housing starts this year just as they have (wrongly) in each of the previous eight years.”

Source: Random Lengths, January 2006

Harvest rates – how did we get the projections so wrong? It has been a stroke of luck that we have been able to sell all our wood up to the peak harvest year (2002). Think of the carnage out there in 2006, if we had tried to sell 30 MMCM into the market, instead of ~ 18.5 MMCM
Part of the reason is a major slowdown around here -- a legacy of looney industry strategies in the last decade.

Log exports had been the basis for NZ’s plantation expansion for a generation -- but what about the future?
Future wood demand in Australia is very important to our business.

A key to NZ’s future in sawmilling is --- will the Australian market hold up --- or shrink significantly?

[Graph showing Australian Sawn Timber Imports, 1990-2005]
On the face of it the prognosis does not look good ---

--- with even the Europeans starting to gain market share.

Europe CAGR = 56%

NZ CAGR = 3%
Although Jaakko Poyry (2005) believe there will still be a small lumber deficit in Australia in future, even with modest housing starts.

And a lack of new land planting in Australia over the past several decades may yet catch up with them on the next housing up-cycle.

This may happen sooner than later.

Have they done a “NZ’r” on themselves – only 10 years later?

And one of the oldest pieces of wood research in New Zealand has suddenly become the most topical – density and strength.

- The new standards amendment No. 4 of NZS 3603:1993 Timber Structures Standard and the NZS 3622:2004 covering the verification of timber properties (grading) in New Zealand is complete.

- This amendment provides for lower design stresses for “unverified” timber.

- If your logs will not sonic test to 2.9 – 3.0/3.1 km/sec in future, perhaps start to worry now.

RADIATA PINE WOOD DENSITY BY REGION
The Australasian MDF industry is suffering from oversupply, global capacity growth and intense competition. Profitability has seriously suffered.

**Australasian LVL**

- Global and Australian demand is growing fast – but so is capacity
- Aust & NZ
  - CHH Nangwarry
  - Wesbeam
  - CHH Marsden Point NZ
  - NPI Nelson NZ
  - Imports – Finland etc
- Big issue fibre strength – E 13.2
  - NZ struggling
  - Nangwarry 50 year trees to 36 year trees in 2004-2006
Pricing for US Moulding & Better Lumber market in 2005 (Black Line) was the perfect negative storm – but what is in store?

"The future price of Moulding and Better Lumber in the United States will be that which will allow New Zealand sawmillers to break even making it."

Source: Internationally recognised expert on industrial lumber markets in North America, 2005
We have largely failed over the last 40 years to get radiata pine established as a “respected” species outside of Oceania, and a little in USA

And the (2nd latest effort) costing millions of NZ Govt. and Industry money has sadly ended in tears

Tenon Major events, 2005 included

“The exit from our European market with Zenia house in Denmark.

An impairment charge of $0.7 m was made in the period to provide for all exit costs”

Tenon Report to Dec 31 2005

And many forest owners are not waiting around for the good times to return - would you?

Changing land use

Is this the tip of the iceberg?

MAF suggests ~ 6,000 hectares per year of conversion possible, for a few years only

We believe that UP TO 200,000 hectares may be at risk.

Landcorp, Kiwi, CHH core, CHH non-core, Ngai Tahu, Private Maori Leases, SPB, KT CFL, private FF

Very important for both industry and Government to more precisely identify owners intentions
So the future looks a little troublesome to say the least

Subsidies -- the Global Reality
No matter what the NZ Government, or anyone else thinks, subsidies and/or tax relief are the lifeblood of the global forest industry sector.

The massive new hardwood planting programme in Australia would not have occurred without super-generous MIS tax breaks.
This new CSC green-field Sawmill in Centralia WA, USA (open May 2006) would not have been built without US $15 million in subsidies from the local District Council/Regional Council/State.

And the US Government now offers “New Tax Market Tax Credits” for projects in low income regions to boost employment:

- 20-40% lower than market interest rates for project loans
- 39% tax breaks for seven years
This massive sawmilling (and later, MDF - Particleboard) complex in Wismar, Germany would not have been built without a DM 75 million direct cash Govt. subsidy on the DM 120 million project.

This USD 830 million, 525,000 tpy softwood kraft pulp mill would not have been built in Stendal, Germany in 2004 without major Government subsidies and other financial assistance.
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This $825 million, 7000,000 tpy pulp mill owned by Aracruz would (probably) not have been built in 2002 without below market-rate loans from the Government-owned Brazilian Bank (BNDES).

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This massive new (1.2 million tpy) pulp mill would not have been built in Yangpu, China in 2004/05 without huge interest free loans from the Chinese Government.
And the Canadians don’t know when to stop subsidising – but they do know how to put on a good cocktail function (last night)

Officials from Ontario’s forestry industry welcomed the Feb 2006 three-year, $220-million aid package they say will help shore up its shaky foundations, but warned they won’t be competitive until the province deals with high power costs.

Recent press release

The relationship between Russian wood supplies and Chinese wood demand is a key to our future performance
If you believe the China story from the Chinese - medium to long term investment in Oceania trees should be fine

- How Big is the Wood Demand Gap in China?

- China is a big country of wood production as well as consumption. After carrying out the project of natural forest protection, conflict between demand and supply pricks up and domestic gap between demand and supply enlarges year after year. Gap between demand and supply was 36 million cubic meters in 2003 and reached 109 million cubic meters in 2004, up 202.8%.

- It's to be seen in 2015 demand of timber used in production and construction will amount to 480 million cubic meters and the gap will reach 190 cubic meters. In 2020, gross amount of wood consumption in China will be 678 million cubic meters estimated by an annual average increase rate of 3.71% in the latest 10 years, and conflict between demand and supply will continue increasing.

Building growth is staggering – this new suburb in Shenzhen (population 13 million) was a rice paddy three years ago
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China is the great hope for us -- and has started the process -- and later India

China: Softwood Log and Lumber Imports

<table>
<thead>
<tr>
<th>Year</th>
<th>Logs</th>
<th>Lumber (log eq)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,000 cubic meters</td>
<td>1,000 cubic meters</td>
</tr>
<tr>
<td>2004</td>
<td>16,000</td>
<td>16,000</td>
</tr>
<tr>
<td>2005E</td>
<td>20,000</td>
<td>20,000</td>
</tr>
</tbody>
</table>

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But, so far, New Zealand has hardly been invited to the party

China's Log Imports, 2004 and 2005 (Million CM)

<table>
<thead>
<tr>
<th>Country</th>
<th>2004</th>
<th>2005</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>17.0</td>
<td>20.0</td>
<td>+18%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2.7</td>
<td>1.8</td>
<td>-32%</td>
</tr>
<tr>
<td>PNG</td>
<td>1.3</td>
<td>1.8</td>
<td>+40%</td>
</tr>
<tr>
<td>Myanmar</td>
<td>1.0</td>
<td>1.1</td>
<td>+7%</td>
</tr>
<tr>
<td>Gabon</td>
<td>0.6</td>
<td>0.8</td>
<td>+27%</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>0.4</td>
<td>0.6</td>
<td>+45%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.8</td>
<td>0.6</td>
<td>-24%</td>
</tr>
<tr>
<td>Republic of Congo</td>
<td>0.4</td>
<td>0.4</td>
<td>-8%</td>
</tr>
<tr>
<td>Equatorial Guinea</td>
<td>0.3</td>
<td>0.3</td>
<td>-</td>
</tr>
<tr>
<td>USA</td>
<td>0.15</td>
<td>0.2</td>
<td>+31%</td>
</tr>
<tr>
<td>Others</td>
<td>1.3</td>
<td>1.4</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>26.2</td>
<td>29.4</td>
<td>+12%</td>
</tr>
</tbody>
</table>
Although we have Russian wood supplies are huge --- but they are finite
And, maybe China will come into the market sooner than we had planned...

In conclusion, our future will at least be partially guided by our own behaviour.

We certainly need to pick up our performance on that score.

Both Government and Industry
If I had to develop a strategy for a country on how best to

**seriously discourage** new investment in plantations and

wood processing, I could do no better to recommend

the adoption of recent governments’ plethora of increasingly

restrictive, incoherent, incomprehensible and anti-business policies

And some of our industry colleagues have not been performing much better. May the new crop learn lessons from the last decade. But will they?

**Plantation Forest Ownership, Early 2006 (Thousand hectares)**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Companies</td>
<td></td>
</tr>
<tr>
<td>Samling – Hikurangi Forest Farms</td>
<td>25</td>
</tr>
<tr>
<td>Carter Holt Harvey</td>
<td>208</td>
</tr>
<tr>
<td>Emiawá One</td>
<td>86</td>
</tr>
<tr>
<td>Jaken Niako</td>
<td>55</td>
</tr>
<tr>
<td>Oji Paper (Pan-Pac)</td>
<td>33</td>
</tr>
<tr>
<td>Lake Taupo Forest Trust</td>
<td>16</td>
</tr>
<tr>
<td>Investment Funds</td>
<td></td>
</tr>
<tr>
<td>City Forests</td>
<td>15</td>
</tr>
<tr>
<td>Harvard Mgt. Co. – Kaimanga Timberlands</td>
<td>165</td>
</tr>
<tr>
<td>Raynmore – Deutsche Bank Capital Assets</td>
<td>145</td>
</tr>
<tr>
<td>Hancock Timer Resource Group Pru Timber</td>
<td>102</td>
</tr>
<tr>
<td>Global Forest Partners Funds</td>
<td>79</td>
</tr>
<tr>
<td>GMO Renewable Resources</td>
<td>48</td>
</tr>
<tr>
<td>Rotorua Forest Trust Board</td>
<td>9</td>
</tr>
</tbody>
</table>
So, to an optimist, we must be close to the bottom of the barrel -- and now is the time to start investing for the future.

But a pessimist might say that it is an industry that still needs to re-invent itself.

Where do you and I sit on this in 2006?