Overview of International Timberland Investment Trends: Where does the New Zealand Forestry Sector fit in?

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Topics Covered

• Historical Perspective
  – Government Forests
  – The Rise and Consolidation of Forest Products Companies

• The Start of the Sell-down
  – The Rise of TIMOs
  • and T-REITS -- and Funds

• The Role of New Zealand
  – New Zealand Ownership 2010

• Sizzle Country Trends
Government Industrial Forest Ownership

Most forest products industry initially used government forest wood supplies – and many still do

- Canada (still)
- Sweden (still)
- Russia (still)
- Chile (until 1970’s); then privatised
- US Pacific North West (until 1980’s); then locked up
- New Zealand: 50% + until 1990’s – in 2010 NZ is still the 6th largest owner
- Australia (until late 1990’s) and still ~ 50% SW – but not for long
  - 200,000 ha Queensland Govt assets into final stage of bidding
- South Africa -- still very important in softwoods
- UK -- still largely
- Central/Eastern Europe

The Rise and Consolidation of forest Ownership by Forest Products Companies

- The FP company concept is ancient
  - Sweden’s Stora Enso dates back >720 years
- North American/Scandinavian FP companies >100 years old [PBTF (BP NZ) ~150 years old]
- Most expansion/consolidation from 1945 to 2002
- Trend of consolidation to 2-3 giant FP companies
  - USA: Weyerhaeuser and International Paper
  - Chile: Arauco and CMPC
  - Brazil: Fibria (ex-Aracruz and VCP) and Suzano
  - South Africa: Mondi and SAPPi
  - Finland: Stora Enso, UPM and Metsälitto
  - New Zealand: Fletcher Challenge and Carter Holt Harvey
The Rise of TIMO’s -- and T-REITS -- and Forestry Funds

• A “lucky” marriage of supply and demand started in early-mid 1980’s
  – US forest products companies required by Wall Street to sell forests to crystallize value gains
  – Changed US tax laws enabled institutions to invest in forests

• An initial three TIMO’s: HTRG, RII (now GFP) and Wachovia (now RMK) – have grown like topsy

And in 2009 "financial"* TL investments totalled almost US$50 billion

Source: BAM, 2010  * = Public + Institutions
This sounds a lot, but not when compared with the total investment funds: only around 0.07%

Now

- **20-25 US based TIMO’s**
  - Has been main pension fund investment vehicle

- **4 US based T-REITS** – e.g. Rayonier

- **Listed UK Vehicles** – Phaunos, Cambium, (ex) Highland Timber

- **Listed China Forestry Cos (Canada-Hong Kong)**
  - SinoForest, Cathay Forest, China Forestry Holdings

- **Growing list of Specialised Forestry Funds**
  - Germany, UK, Ireland, Europe, Chile, Brazil
  - Including Fund of Funds – Stafford, IWC etc

- **Growing List of “Forestry Index” Funds**
  - UK, USA, Switzerland
Future Forestry Finance 2010

Although in the year to March 2010, the easiest and best thing was to just invest in a US Forest Products Index

<table>
<thead>
<tr>
<th>Index</th>
<th>YOY % Change</th>
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</thead>
<tbody>
<tr>
<td>US Forest Products Index</td>
<td>104%</td>
</tr>
<tr>
<td>S&amp;P 500 Index</td>
<td>60%</td>
</tr>
<tr>
<td>Dow Jones Industrial Average</td>
<td>54%</td>
</tr>
</tbody>
</table>

Retail Forestry Investment: Remains a minor component and much has been "problematic"

- World’s first retail Fund was NZ Perpetual Forests from 1927
  - NZ £100 bond [2009 = $ 8,700] purchased one planted acre
- Earlier Teak rorts out of Holland (Central America) and India
  - Still probably several recent ones to shy away from
- Significant retail investment in NZ in 1980’s and 1990’s but now mostly on hold
  - Roger Dickie, Forest Enterprises, Greenplan [These are all bona fide!]
- Huge retail “MIS” investment in Australia in 2000’s
  - ~700,000 new ha – mostly eucalyptus fibre for woodchips
  - Three “MIS” companies failed in 2008 - 09 – >280,000 ha involved; and possibly more
  - Surviving retail players now mostly focus on Euc. sawlogs, Mahogany, Teak, Sandalwood
- Uruguay Retail Fund “problematic”
The Role of New Zealand

New Zealand has gone through the classic forest ownership cycle – with a few other twists

- Government Forests
- Forest Products Companies
- TIMOs – Funds
  - Aust. – NZ – USA – Canada – European Pension Funds
- Private overseas based FP companies
- Growth of woodlot forestry

New Zealand has played a major leadership role in "overseas" investments of USA- based TIMOs/REITs

![Overseas Institutional Ownership Estimate 2009](chart_image.png)
2010 NZ Forest Ownership

<table>
<thead>
<tr>
<th>Company</th>
<th>Thousand ha</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTRG</td>
<td>290</td>
<td>US TIMO</td>
</tr>
<tr>
<td>GMO Renewable Resources</td>
<td>210</td>
<td>US TIMO</td>
</tr>
<tr>
<td>Matariki Forests</td>
<td>130</td>
<td>US-Aust.-German-UK Group</td>
</tr>
<tr>
<td>Ernslaw One</td>
<td>100</td>
<td>100% Malaysian FP</td>
</tr>
<tr>
<td>Global Forest Partners</td>
<td>100</td>
<td>US TIMO</td>
</tr>
<tr>
<td>MAF Managed Forests</td>
<td>60</td>
<td>NZ Government</td>
</tr>
<tr>
<td>Juken NZ</td>
<td>55</td>
<td>100% Japanese FP</td>
</tr>
<tr>
<td>Pan Pac</td>
<td>34</td>
<td>100% Japanese FP</td>
</tr>
<tr>
<td>Glenealy</td>
<td>29</td>
<td>100% Malaysian FP</td>
</tr>
<tr>
<td>Roger Dickie</td>
<td>24</td>
<td>NZ Retail Syndicate</td>
</tr>
<tr>
<td>Blakely Pacific</td>
<td>23</td>
<td>US Private Forestry</td>
</tr>
<tr>
<td>“Other” includes</td>
<td>480</td>
<td>Mostly Woodlots</td>
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Rising land prices have spelt the demise of most new land industrial forestry establishment

NZ Rural Land Prices

- Dairy Land: 13% (90-08) vs 9% (00-08)
- Fattening Land: 14% (90-08) vs 8% (00-08)
- Grazing Land: 13% (90-08) vs 8% (00-08)
With expected returns for radiata pine forests slipping substantially over the last two decades

Maybe 30% of what can perhaps be achieved in selected Central American teak investments (20 year rotation)

Log prices US$ 185 – 300 per CM at road-side (depending on diameter and % heartwood): start at 6-8 year thinnings
And long term log prices in NZ have not been behaving themselves

![Graph showing Domestic P1 Grade $2009 Real Log Price Trend: 1991–2009]

- 1991 - 2009 = -1.3% real pa
- 2001 - 2009 = -6.0% real pa

But NZ is a “safe haven” – e.g. in 2007 Tree Farm Investment Attractiveness Ranking Terms

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
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<tbody>
<tr>
<td>1</td>
<td>USA</td>
<td>20</td>
<td>Czech Republic</td>
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<td>2</td>
<td>Finland</td>
<td>30</td>
<td>India</td>
</tr>
<tr>
<td>3</td>
<td>Sweden</td>
<td>40</td>
<td>Panama</td>
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<td>4</td>
<td>Germany</td>
<td>50</td>
<td>Philippines</td>
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<tr>
<td>5</td>
<td>Canada</td>
<td>60</td>
<td>Ukraine</td>
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<td>6</td>
<td>Australia</td>
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<td></td>
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<tr>
<td>7</td>
<td>New Zealand</td>
<td>70</td>
<td>Zimbabwe</td>
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<tr>
<td>8</td>
<td>United Kingdom</td>
<td></td>
<td></td>
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<tr>
<td>9=</td>
<td>Ireland</td>
<td></td>
<td></td>
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<tr>
<td>9=</td>
<td>Chile</td>
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And --- similar “Georgia Chickens” eventually reach other shores – e.g. Uruguay

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<tbody>
<tr>
<td>Uruguay Forestry Land Prices: 2004 - 2009</td>
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Many forestry investors follow subsidies – tax breaks

- Tax breaks (up to 98%) in UK in 1970’s -1980’s; and no income tax
- Various subsidies/tax breaks in NZ from 1970’s and since 1992
- Chile industrial forestry subsidies 1970’s - ~ 2000
- Uruguay subsidies in 1990’s, and still tax breaks from 1990’s – no existing or new income taxes
- Australian MIS Tax minimization in 2000’s
- Ultra-cheap land lease and tax breaks? in SEA and Southern Africa in 2000’s
### Sizzle Region/Country Trends

- **1980’s:** US Pacific Northwest
- **1990’s-2000s:** US South
- **1990’s – mid-2000s:** New Zealand: [two sizzles]
- **Late 1990’s – early 2000’s:** Australia
- **1990’s Chile:** [But very restricted opportunities]
- **Mid-2000’s Decade:** Uruguay
- **Late – 2000’s Decade:** Brazil
- **2010:** Southern Africa “discovered” by two Funds
- **Next:** China? Russia? West Africa?

### The Future of Carbon Forestry

- **DANA** has studied for three years, researched for and published a major international Review on the subject – but still remains “fuzzy” about this investment space.

- **Investors** will either make a lot more money than they predict -- or a lot less. Time will tell.
  - Some NZ carbon sales – e.g. 550,000 tonnes ex Ernslaw ($10 m +) in 2009; and we hear $3 m deal in 2010
  - Dickie’s new “Onslow” PFSI carbon forest project is reportedly selling well
The future of "Renewable Energy" forestry investment

- Dozens of promoters and investors around the world are diving into this space

- Very large new plantings in anticipation of future global biomass demand

- But perhaps still "caveat emptor"? – see late-February 2010 media report

  - DRAX, The UK’s largest coal-fired power station has reportedly suspended plans to begin burning biomass - to reduce carbon emissions by 3.5 million tonnes a year.

  - It costs it £31 per megawatt to produce energy from coal compared to £40 per megawatt for biomass. Present subsidies way too low.

  - Cheaper for Drax to burn coal and purchase extra emission allowances under the European emission trading scheme than it was to switch to biofuel.

  - the company was also considering selling on two million tonnes of biomass that it has already purchased

Sources for material include:

- THE NEW ZEALAND FOREST PRODUCTS INDUSTRY REVIEW
  2010 Edition

- International Timberlands Ownership and Investment Review
  2009 Edition
Thank you for your attention

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