Forests NSW

International Competitiveness of the Australian Forest Products Sector

Topics

- Forests NSW
- Competitiveness along the supply chain:
  - Forestry Competitiveness
  - Sawmilling Competitiveness
- Long term supply demand for timber
- Some opportunities
Forests New South Wales

- Forests NSW is a public Trading Enterprise within the Department of Primary Industries.
- Manages 2.4 million hectares of State owned forests including 200,000ha of softwood plantations and 50,000ha of hardwood plantations.
- Harvests 4.0 million tonnes of logs a year which is supplied to a wide range of wood products manufacturers across the State.
- Operate through 4 Plantation and 5 Native Forest Regional offices with Technical, Finance and Sales and Marketing support functions.

Softwood Plantations Logistics

- Fairly classical approach to plantation logistics and modeling.
- Described by Jules Crawshaw.
- Market Supply Model is unique and not yet used in our hardwood business.
Native Hardwood Logistics

- Handled using the same conventional software but the problems are more complex
  - Consider the North Coast of NSW. Within this area we operate over:
    - 300,000 ha
    - harvesting 40 species, across
    - 10 log types, and
    - 70 specification classes, from
    - up to 500 compartments a year, across
    - 4 difficulty classes, operated
    - by 40 Contractors each with individual rates

Forest Establishment Costs (A$/ha)

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>South America</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Land Cost</td>
<td>$850.00</td>
<td>$2,743.95</td>
<td>$4,750.00</td>
</tr>
<tr>
<td>Land Preparation</td>
<td>$288.02</td>
<td>$263.92</td>
<td>$893.62</td>
</tr>
<tr>
<td>Planting</td>
<td>$195.56</td>
<td>$162.08</td>
<td>$709.84</td>
</tr>
<tr>
<td>Blanking</td>
<td>$50.14</td>
<td>$7.80</td>
<td>$37.72</td>
</tr>
<tr>
<td>Fertilising</td>
<td>$98.44</td>
<td>$117.43</td>
<td>$184.80</td>
</tr>
<tr>
<td>Total</td>
<td>$595.25</td>
<td>$540.64</td>
<td>$1,781.50</td>
</tr>
</tbody>
</table>

- Bare land costs are high in Australia
- Establishment and re-establishment costs are significantly higher in Australia than South Africa and South America
- Planting and fertiliser costs may be explained by labour costs and stocking rates
- Australia puts a lot of effort into land preparation
- Biomass offers an opportunity to substitute a cost for a revenue stream

Source: Forestry Economics Services
Forest Overheads (A$/ha/annum)

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>South America</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Maintenance</td>
<td>19.59</td>
<td>17.75</td>
<td>34.04</td>
</tr>
<tr>
<td>Building Maintenance</td>
<td>4.86</td>
<td>1.27</td>
<td>3.43</td>
</tr>
<tr>
<td>Maintenance of Other Improvements</td>
<td>1.13</td>
<td>2.00</td>
<td>1.08</td>
</tr>
<tr>
<td>Administration</td>
<td>134.84</td>
<td>82.48</td>
<td>142.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>160.84</strong></td>
<td><strong>103.8</strong></td>
<td><strong>181.00</strong></td>
</tr>
</tbody>
</table>

- Australian road maintenance costs are high relative to the other two regions
- Administration costs are high relative to South America but close to South Africa

Source: Forestry Economics Services

Log Harvest and Transport Costs (A$/m3)

<table>
<thead>
<tr>
<th></th>
<th>South Africa</th>
<th>South America</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvest to Roadside</td>
<td>9.79</td>
<td>6.21</td>
<td>11.91</td>
</tr>
<tr>
<td>Loading and Transport</td>
<td>11.20</td>
<td>11.14</td>
<td>9.36</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20.99</strong></td>
<td><strong>17.35</strong></td>
<td><strong>21.27</strong></td>
</tr>
<tr>
<td>Transport cents / m3 /km</td>
<td>16.1</td>
<td>6.7</td>
<td>12.3</td>
</tr>
</tbody>
</table>

- The picture for harvest and haulage is less clear with smaller differences between the three regions
- Australian harvest to roadside is the most expensive but is probably most implicated by piece size and labour cost

Source: Forestry Economics Services
Exchange rate movements have negated some of Australia’s traditional advantage in this area.

Source: URS

Australian labour costs are high relative other regions. Main contributing reasons are scale and the impact of the exchange rate on reasonably high A$ costs.

Source: URS
Other direct costs are also high in Australia. Main contributing areas would be mill age and therefore maintenance costs and power costs.

Source: URS

Australian power costs are at the low end of the international scale.

Source: Power Engineering International
Overheads in this context are site only overheads where Australia is very competitive.

Source: URS

Australia makes up for its high cost with a high price and competitive margin.
Australian saw mill costs are the highest on aggregate across the countries surveyed.

For the next 20 years softwood saw log availability is flat with hardwood making a contribution within 15 years.

Source: URS

Source: Bureau of Rural Sciences
Projected Australian Timber Demand (m3)

Source: ABS

Implications

- Australia has limited opportunities to grow its saw log harvest and saw mill capacity in the medium term and will continue to be a net importer of timber products.
- High freight costs, sizing, traditional distribution networks and exposure to the A$ provide natural barriers to imports.
- Domestic mills have opportunities to reduce costs which they will take advantage of but are limited by scale.
- Consolidation will provide opportunities.
- Opportunistic imports will always be a threat.
Opportunities

- Hard logistics from the forest to the saw mill
- Soft logistics from the forest to the saw mill
- Hard logistics from saw mill or wholesaler to the builder
- Soft logistics between the saw mill and the builder

Cost Savings Through Logistics

Stage 1
- Forest Owner, Harvesting Contractor, Transport Contractor
- Mill Owner

Stage 2
- Forest Owner
- Harvesting Contractor
- Transport Contractor
- Mill Owner

Stage 3
- Forest Owner
- Harvesting Contractor
- Transport Contractor
- Mill Owner

Logistics Control

- There are opportunities to better control the flow of wood from the forest to the saw mill
Cost Savings Through Logistics cont.,

- There are opportunities to reduce cost through the market distribution chain

Conclusion

- Australia is an expensive place to grow and process timber, but
- Will remain a net importer of lumber for some considerable time
- Natural barriers to entry provide something of a shield to international competition
- There are opportunities to reduce cost and improve value recovery through logistics
- Saw log prices are too low