

IMPROVING THE UNDERSTANDING OF FOREST VALUATION FUNDAMENTALS, THE CURRENT MARKET AND VALUE DRIVERS

LOG PRICE IMPLICATIONS FOR FOREST VALUATION

CHANGES IN LOG PRICES

In [issue 2 & 3](#) we looked at the sensitivity of tree crop values to log prices and in summary:

1. Forest value is directly related to log prices; positive change in applied prices results in positive change in tree crop values,
2. Log prices have a multiplier effect on forest value. The example shown in issue 2 indicated that a 5% change in applied log prices resulted in a 12–16% change in values depending on the maturity of the crop and the cost structures, and
3. Short term log price falls have a differing effect on forest value depending upon the timeframe until harvest, as valuers incorporate current prices in different ways:
 - Immediate harvest: Heavy weighting towards current or short term log prices
 - Harvest 1-3 years away: Likely to apply 12 month average prices (less weighting on current spot price), and
 - Harvest 3+ years away: Likely to apply 24 or 36 month average prices (low weighting on current price).

To illustrate this, the graph below shows the Export A grade

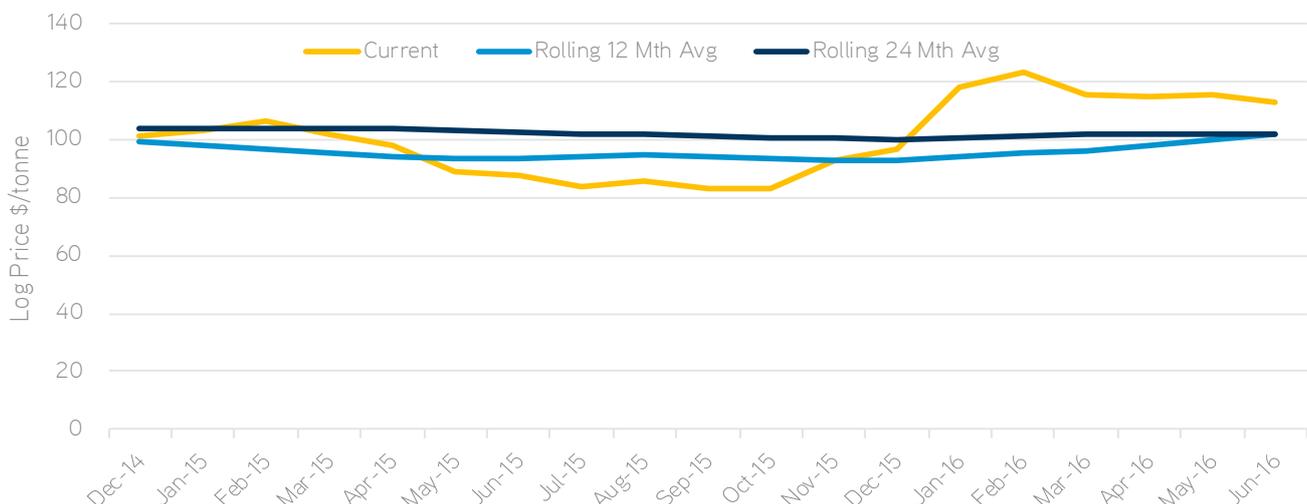
price for the period December 2014 – June 2016. This period was notable for a large fall in at-wharf-gate (AWG) price for export grades during May - July 2015.

Of note from the graph:

- Rolling 12 month average was stable during May - October 2015, as the monthly log prices were similar to the previous year thereby leaving the average unchanged)
- Significant lift in rolling 12 month averages in December 2015 - June 2016 (+7%), due to sustained prices being higher than 12 months prior
- The 22% lift in price in January 2016 only led to a 1% rise in both 12 and 24 month rolling averages
- Despite the A grade price fluctuating from \$83 - \$123 during this period the rolling average ranges are \$93 - \$100 (12 month) and \$100 - \$104 (24 month).

This illustrates how the decision your forest valuer makes on which log prices to apply may have significant bearing on the value derived. It also demonstrates that the value derived from 2-3 year average prices will be more stable year on year.

FIGURE 1: SOUTHERN NORTH ISLAND EXPORT A GRADE (CURRENT & ROLLING AVERAGE PRICE)

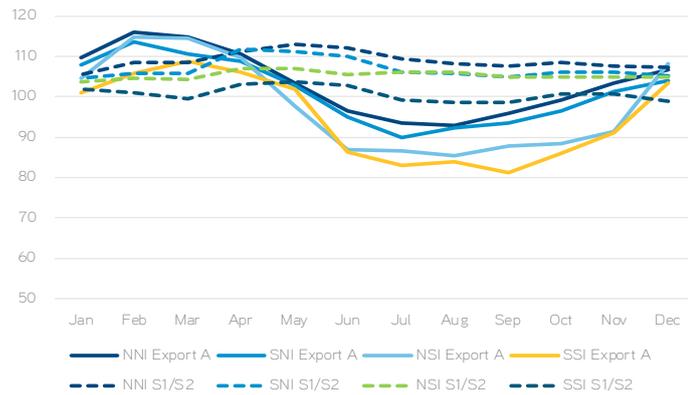


DOMESTIC VS. EXPORT GRADE MIX

While figure 1 illustrates the impact of changes in export prices, the impact of this to a forest owner is also determined by the level of exposure to each market. A number of log grades have multiple markets and can be supplied to either domestic mills or to log traders for export.

Figure 2 below illustrates the average log price over a 12 month period for the better quality unpruned logs in a forest: Domestic S20/S30 and Export A grades.

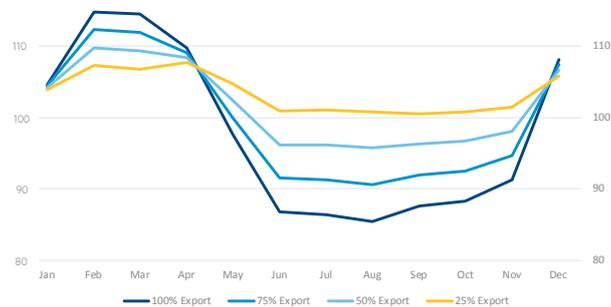
FIGURE 2: EXPORT A GRADE VS. DOMESTIC S30/S20



The graph illustrates that the common assumption that export and domestic marketing scenarios exhibit price parity can be incorrect for your region and the period in question. Historical monthly pricing will indicate the validity of this for your region and alternative log grades.

To illustrate how average log prices received for various grades are impacted by the export vs. domestic marketing mix I have compared four scenarios in the Northern South Island region for the grades Export A and Domestic S30/S20. The comparison has the following export:domestic mix: 100%:0%, 75%:25%, 50%:50% and 25%:75%.

FIGURE 3: WEIGHTED AVERAGE LOG PRICE (NSI EXPORT A & S30/S20)



Marketing mix weighted towards domestic markets exhibits least extremes due to more stable domestic pricing.

SHORT HARVEST DURATION

What average prices should you apply if your forest has a short harvest duration? Common production for harvesting crews is 150-200 tonnes/day, although fully mechanised crews working in large estates may average 400 tonnes/day. If your forest is 50ha for example, the harvest may span 25-30 weeks.

If your harvest is this size or smaller, the timing of your harvest will have an impact on the average log prices received especially if you are heavily exposed to the export markets and with limited access to domestic markets.

With a longer harvest period the full cycle of the log prices is likely to come into play and annual averages are likely to prevail.

In evaluating the timing of your harvest, and considering winter vs summer harvesting, the following should be taken into account:

Winter

- Higher weight of logs (due to winter moisture content) for a given volume.
- Higher revenue if producing for domestic mills. More crew availability for both logging and trucking as ground-based harvesting becomes more limited.
- More opportunity to supply domestic mills as their supply options become constrained.

Summer

- Cheaper road formation and maintenance.
- Better export conversions for every tonne of logs. Therefore more value from given weight of logs.
- Lighter wood due to moisture content, therefore lower costs (\$/tonne) for logging, trucking, management.
- Higher daily production due to longer daylight hours and better weather.

In the next issue of the Forestry newsletter we will look into some aspects of the Carbon Emission Trading Scheme (ETS) in New Zealand.

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