Log Market Analysis

March 2022



Photo 1: Hauler crew on Landing 20 in Tividale Forest, Wairarapa. April 2022.

The content of this Log Market Analysis is produced quarterly as part of a suite of documents that comprise the regular reporting to forest owners during harvest. This standalone document is made available to other forest owners approaching harvest to keep them informed on market conditions.

We have included log price series separately for Wairarapa and Gisborne forests, as the price series differ for reasons including different customers, log specifications and locations.

Forest Enterprises (FE) is currently harvesting approximately 550,000 tonnes of logs per annum for Wairarapa and Gisborne forest owners, plus a further 450,000 tonnes for a private impact investment fund manager in the same regions.

IMPORTANT

Every effort has been made to provide current accurate information in this document, which is for information purposes only. Any opinions and views expressed are those currently held by Forest Enterprises; however, the reader accepts that where they are opinions and views in respect of future prices, they may subsequently be proven incorrect. The nature of the international log market is that of price fluctuations, and these fluctuations can be material, and material changes can arise due to factors not previously able to be foreseen.



Overview

Winston Churchill said that history would be kind to him as he intended to write it. I have read his history of World War II recently, and my advice is not to drop it on your foot, it's quite heavy. It appears that the Russians have decided to relitigate some of the post war settlements from back in the day and it's not playing out well for their neighbours. I can't offer any advice on that; but for us, life goes on.

China has serious Covid issues. That's an issue for us as demand in China underpins the pine log business in New Zealand. Despite the bad news, we somehow continue to produce and sell our forest products, continue to get paid for logs and continue to produce good returns for our investors. Housing demand is strong, and we are seeing a lot of research into alternative uses of what scientists call fibre and what I call wood. Applications for pine in the future will include biomass and energy as well as conventional lumber, panels, packaging, and paper.

I was recently elected to the Forest Growers Levy Trust, the body which governs the harvested pine levy collection and its investment in industry good research and other projects. The Trust raises and spends about \$10 million per year on science, innovation, and communication. There really are some great projects under way which add value to New Zealand's forest products.



Photo 2: Drone view of road line harvesting along North Road, the main arterial route through the Portview forests in Gisborne. This ridgeline separates the Portview group of forests (left) and the Emerald Hills forests (right). Right forefront is Glenwood Forest, middle right is Longwood Forest, and top is Goodwood Forest. Poverty Bay can be seen in the top right of photo. March 2022.



Wairarapa Log Prices Per Tonne

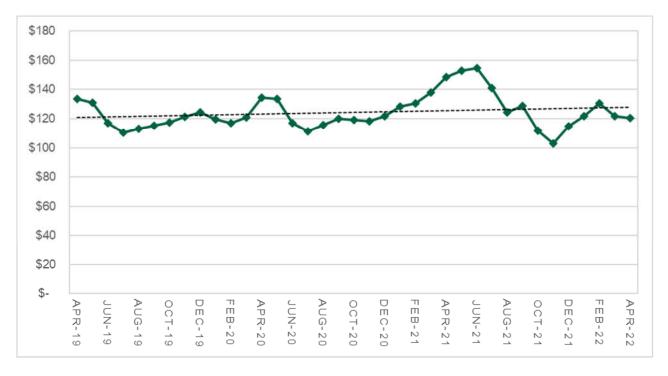
Grade	Forest Enterprises Mar-22	Forest Enterprises 36 Month Average	Current vs 36 Month Average	Percentage of the 36mth Average
Export P40	\$172.60	\$175.85	(\$3.25)	98%
Export P30	\$141.70	\$150.25	(\$8.55)	94%
Export A	\$116.10	\$127.10	(\$11.00)	91%
Export K	\$102.15	\$112.55	(\$10.40)	91%
Export KI	\$94.90	\$103.25	(\$8.35)	92%
Export Pulp	\$84.40	\$89.75	(\$5.35)	94%
Domestic P35	\$184.00	\$177.70	\$6.30	104%
Domestic S30	\$127.00	\$122.85	\$4.15	103%
Domestic S20	\$112.00	\$107.85	\$4.15	104%
Domestic Pulp	\$31.00	\$31.00	\$0.00	100%

Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.

Index Log Price \$121.70 \$124.55 (\$2.85)
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Index Log Price is calculated using inventory measurements from our Wairarapa forest crops and establishing an average log grade recovery for our typical Wairarapa Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest.

Index Log Price for our typical Wairarapa Forests





Gisborne Log Prices Per Tonne

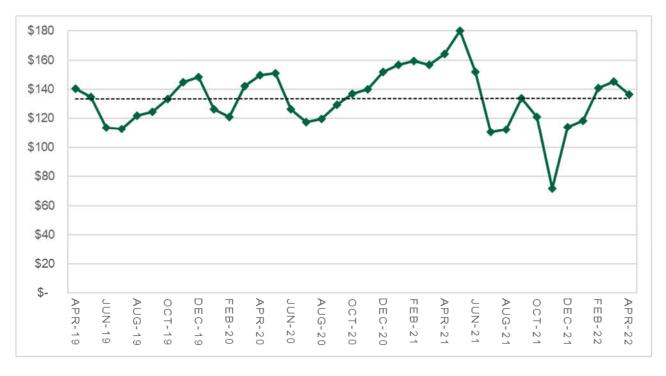
Grade	Forest Enterprises Mar-22	Forest Enterprises 36 Month Average	Current vs 36 Month Average	Percentage of the 36mth Average
Export P40	\$188.65	\$175.95	\$12.70	107%
Export P30	\$167.70	\$141.90	\$25.80	118%
Export A	\$142.25	\$130.65	\$11.60	109%
Export K	\$123.95	\$116.30	\$7.65	107%
Export KI	\$113.50	\$108.25	\$5.25	105%
Export Pulp	\$103.00	\$97.35	\$5.65	106%
Domestic P35	\$177.00	\$184.95	(\$7.95)	96%
Domestic S30	\$130.00	\$138.35	(\$8.35)	94%

Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. Refer to page 5 for more detail on the JAS to Tonne Conversion.

Index Log Price \$145.18 \$133.95 \$11.23	108%
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Index Log Price is calculated using inventory measurements from our Gisborne forest crops and establishing an average log grade recovery for our typical Gisborne Forest. Applying these estimates to our long run prices per grade has derived an Index Log Price. This index price helps to estimate the average logs sales predicted for a typical forest.

Index Log Price for our typical Gisborne Forests





Factors Influencing Current Log Price

Key:

More Benefit to the Investor

Less Benefit to the Investor



Price, Costs and Logistics



Forex

Export logs are priced in USD. Exchange rates are often affected by merchandise exports as well as a general level of confidence in the New Zealand economy. Over the last 3 months, the exchange rate has moved around but has now fallen (in NZD to USD terms) from about \$0.67 to about \$0.66, which adds a couple of dollars to NZD returns on log exports but on the flipside also increases the costs of imported materials. This exchange rate level is normal and continues to fluctuate.

FE takes no forward position or hedge in currency trading. Hedging imposes transaction costs without giving certainty of improved outcomes.



Shipping

Shipping remains challenging, with a high level of friction in all parts of the process. Bunker fuel pricing is volatile, congestion at load ports remains high while discharge ports are coming under a lot of pressure due to Covid labour lockdowns. Demand for ships is steady in the conventional handy-size and the less utilised but larger Supras. Shipping cost has fluctuated a lot and remains relatively high. Some bulk ships have been caught in large queues waiting for discharge in China, with potential cost in delay becoming more likely.



JAS to Tonne Conversion

JAS-to-tonne conversion rates were relatively steady in falling from 99.5% in December 2021 to 97.9% in March 2022, to be expected in colder/wetter months. This decreases revenues from JAS sales units vs. fixed cost incurred by weight in tonnes. Gisborne conversion is higher (98.3%) than Wellington (97.8%), however a large proportion of the better-quality Wellington logs are sold to sawmills by the tonne (not in JAS measurements).

Export logs are sold in Japanese Agricultural Standard cubic metres (JAS). JAS is a measure of useable log volume rather than weight. Payments to most contractors are made based on weight, which is appropriate for handling heavy material. This means the return to the forest owner is affected strongly by the conversion of weight to volume in the logs.

Conversion has seasonal trends and varies between log grades, log length and log quality. Accounting for conversion is necessary to report comparable values from different sales options. Our convention is to report all prices converted to the 'per tonne basis', which would appear different if compared with a per cubic metre (JAS) series. Hence why our harvest reports show monthly JAS/tonne conversion per forest.



Log Price, Export CFR

CFR (Cost and Freight) is the price in USD paid by the end user/buyer.

<u>China</u> Price slightly higher than trend.

South Korea Matching China.

India No Forest Enterprises-manage cargo going to India, market has changed

Japan Low

Log Demand



Export Log Inventory in Market

China Inventory of logs in China is a leading supply/price indicator. Inventory levels in China fell to

about 4.5 million JAS. Log supply remains high at about 93 days of supply with current usage at about 48,000 JAS per day. The speed that logs turn to lumber and lumber turns to

cash drives market sentiment. This trend is negative for log price.

South Korea south Korea is reducing covid restrictions and so log and lumber usage is growing as

people return to work.

India Very low usage of New Zealand logs currently due to supply from Australia, and

restrictions on fumigation in New Zealand. Interest shown by log importers in the new fumigant EDN, which may replace methyl bromide in time, however, is quite expensive and

not yet approved for operational usage.



<u>Japan</u>

Japan log supply is short, but sawmills are switching to domestic tsugi (cypress) supply from pine due to unfavourable exchange rates making imports uncompetitive.



Pruned Log Grades

There is good, steady demand for pruned logs. We supply four major sawmills with pruned logs. We continue to prune in our forests and pruning is adding value to current stumpage returns, and reducing log price volatility.



New Zealand Domestic

The domestic sawmill demand for logs remains strong but capped by sawmill capacity. Forest Enterprises is a major local supplier to sawmills. Our strategy to is support local log users to reduce our market concentration risk. Lumber demand for housing is rising.



Housing and Business

House construction in New Zealand continues to grow. Availability of labour and lumber is holding down production and keeping construction costs high. Some construction sites are held up awaiting products like gib, or lumber.



Domestic Construction

Banks are signally a lower level of credit availability and increasing fear that with the rise in interest rates and inflation some highly geared homeowners may have trouble servicing loans. Property price may be under pressure, which is a very challenging idea for Kiwis who haven't travelled or read much history.

Log Agency

Washups have been positive recently, seeing returns to investors grow as sales are completed above our initial price expectations. Washups on a falling market may turn negative though, and that could play out in the next quarter.

Log Supply

New Zealand The sector is quite busy but we are rolling into mud season, and

uncertainty around price and demand continues to keep expectations

relatively low. I expect NZ production to decline over winter.

<u>Australia</u> Not many sales options; shut out of China, losing ground in Korea. The

Government is looking for domestic processing options, and industrial uses

to add value to low grade logs.

Europe and Russia Russian logs have been declared to be "conflict logs" by the Forest

Stewardship Council, meaning the log trade into Western Europe has stopped. Ukraine log trade has ceased for other reasons. European spruce

supply is dropping by half as the beetle damage forest cut declines.

Pacific Northwest (PNW) Canada to US trade going well. Export trade very slow and Japan business

difficult due to the high USD to Yen.

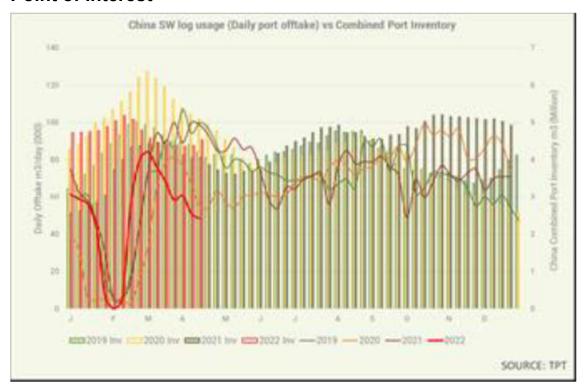
Other South American nations out of the money in China, changing sales mixes

from log export. Russian logs and lumber looking for a new customer and

their product will turn up somewhere eventually.



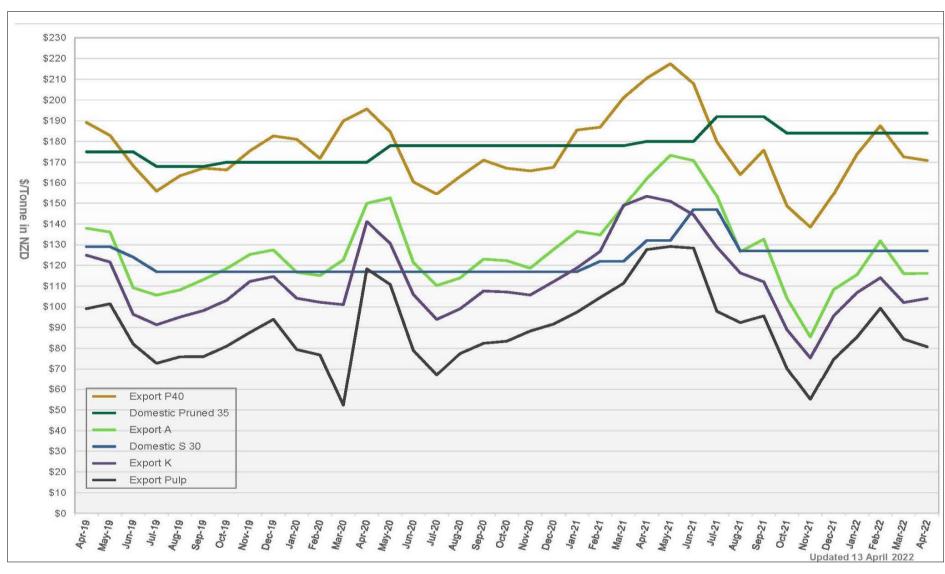
Point of Interest



Log usage in China declining and stocks rising.



Lower North Island Log Price Graph per Tonne



Log Price Graph: Tracks the key log prices for a 37-month period. The first 36 months are the months which comprise the average referred to under Log Prices per Tonne above. The 37th month shows the indicative prices scheduled for the current month. Export sales units are volumetric (JAS) while domestic sales units are paid per tonne. The Export JAS prices have been converted to tonnes. These log price averages do not reflect any price adjustments that may occur following washups with our log export partners.

