Log Market Analysis

December 2021



Photo 1: Even as mechanised harvesting becomes more common, manual tree falling is necessary in some forest settings.

Photo in Gisborne.

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 600,000 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

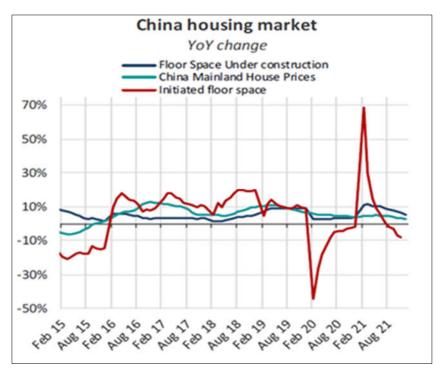
It's been a long Christmas break in the forestry business, as we took time out to allow the market conditions to either settle or at least become clearer.

We are back into full production now, and price is recovering albeit for reasons which are not obvious.

One thing we do know is that primary exports are a leading contributor to New Zealand's balance of trade, and our government needs the income to pay for medicine and whatever else governments do with our tax money.

There are a couple of major issues out of our hands, like Covid-19, volcanoes erupting and sabre-rattling by great powers. But, failing catastrophic events, the industry is on an improving trend and I'm happy to be here.

I did a bit of tramping over the break – it's as good as it gets anywhere in the world right here in the New Zealand wilderness. My advice is: get outside more, go for a walk and grow some vegies; it's good for the soul.



Housing construction decline in China affects us!



Wairarapa Log Prices Per Tonne

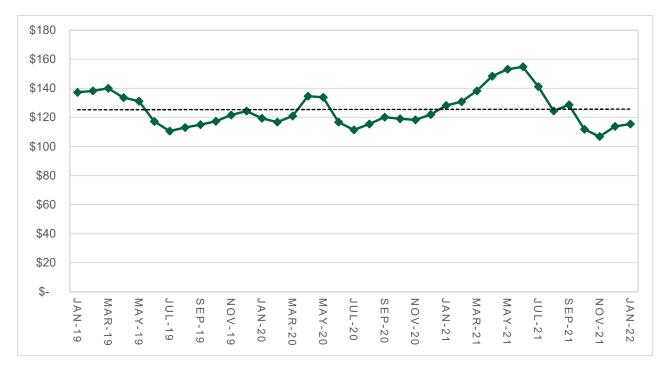
Grade	Forest Enterprises	Forest Enterprises	Current vs	Percentage of
	Dec-21	36 Month Average	36 Month Average	the 36m Average
Export P40	\$155.00	\$177.25	(\$22.25)	87%
Export P30	\$136.40	\$151.60	(\$15.20)	90%
Export A	\$105.20	\$129.75	(\$24.55)	81%
Export K	\$92.65	\$114.60	(\$21.95)	81%
Export KI	\$82.25	\$106.15	(\$23.90)	77%
Export Pulp	\$73.70	\$91.60	(\$17.90)	80%
Domestic P35	\$184.00	\$176.95	\$7.05	104%
Domestic S30	\$127.00	\$122.75	\$4.25	103%
Domestic S20	\$112.00	\$107.75	\$4.25	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	\$113.80	\$127.75	(\$13.95)	89%

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

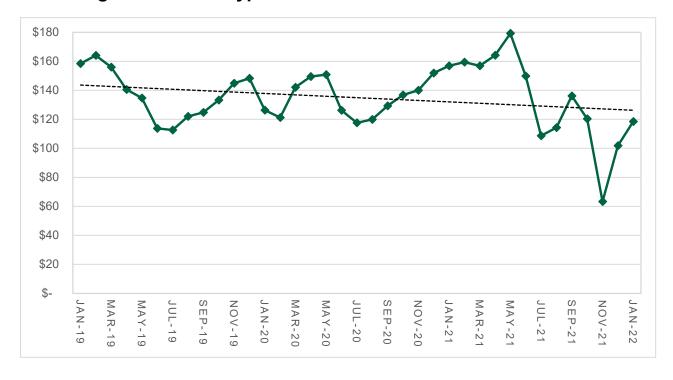
Grade	Forest Enterprises Dec-21	Forest Enterprises 36 Month Average	Current vs 36 Month Average	Percentage of the 36m Average
Export P40	\$149.50	\$176.85	(\$27.35)	85%
Export P30	\$121.15	\$142.75	(\$21.60)	85%
Export A	\$96.45	\$132.60	(\$36.15)	73%
Export K	\$72.30	\$117.15	(\$44.85)	62%
Export KI	\$87.35	\$110.10	(\$22.75)	79%
Export Pulp	\$68.60	\$99.15	(\$30.55)	69%
Domestic P35	\$171.00	\$185.35	(\$14.35)	92%
Domestic S30	\$150.00	\$141.50	\$8.50	106%

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.

mack bog i noc	Index Log Price	\$101.80	\$135.45	(\$33.65)	75%
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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:

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. Recently the exchange rate has fallen in NZD to USD terms from about \$0.69, to about \$0.67, which adds several dollars to NZD returns on log exports but also increases the costs of imported materials on the flipside. 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 has risen in cost, congestion at load and unload ports remains high, and demand for ships is steady. Shipping cost has stopped getting worse but isn't yet improving much. Some bulk ships have left NZ without cargo as they sought higher rates for Australian cargoes.



JAS to Tonne Conversion

JAS-to-tonne conversion rates were relatively steady in rising from 97.7% in September 2021 to 99.5% in December 2021. This increases revenues from JAS sales units vs. fixed cost incurred by weight in tonnes. Gisborne conversion is higher (101%) than Wellington (98.2%), 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 lower than trend.

South Korea Low price.

India Price follows China.

Japan Low.

Log Demand



Export Log Inventory in Market

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

about 4.6 million JAS. Log supply is high at about 82 days of supply with current usage at about 54,000 JAS per day. The speed that logs turn to lumber and lumber turns to cash

drives market sentiment.

South Korea Lumber demand is low, and stocks of higher priced and undersize Australian logs are a

problem for users.

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

restrictions on fumigation in New Zealand.

Japan Short supply of plywood logs, but a fragmented market with multiple small discharge ports

makes logistics expensive and complicated.



Pruned Log Grades

There is good, steady demand for pruned logs. We supply four major sawmills with pruned logs.

New Zealand Domestic

Demand is steady but constrained by mill production capacity; they don't like to have excess logs stocks on hand. Our major customer, Kiwi Lumber in Masterton, is working on increasing production as a target but is currently flat for demand.

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.

Domestic Construction

There is growing talk of a correction in house prices, variously forecast; perhaps a 5% decline, who knows. Meanwhile, there are not enough houses, particularly cheaper houses.

Log Agency

We hope to have seen the bottom of the price cycle. We expect some positive news as recent small rises in sales prices trickle back into log sales washups.

Log Supply

New Zealand Slow restart to 2022. Low levels of woodlot activity.

Australia Not many sales options; shut out of China, losing ground in Korea.

<u>Europe and Russia</u> Europe taking Russia to WTO over recent imposition of log export bans.

Slowdown in recovery of beetle-damaged spruce forests in Europe.

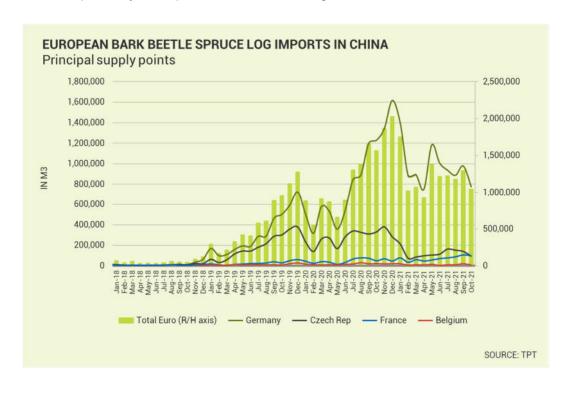
<u>Pacific Northwest (PNW)</u> Canada to US trade going well. Export trade very slow but Japan business

improving.

Other Uruguay suffering forest fires as well as a large fire consuming log stocks

in a storage yard.

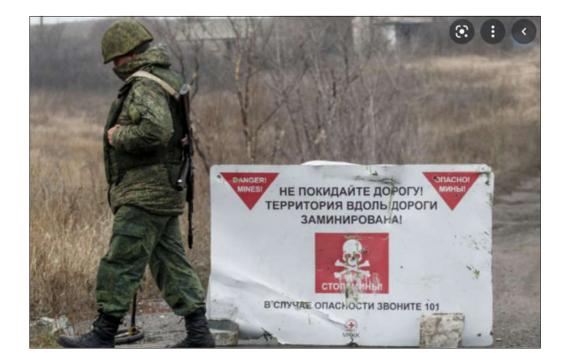
Spruce logs have been a major contributor to the rise in log inventory in China. Any material reduction in spruce volume will positively affect price for New Zealand logs.





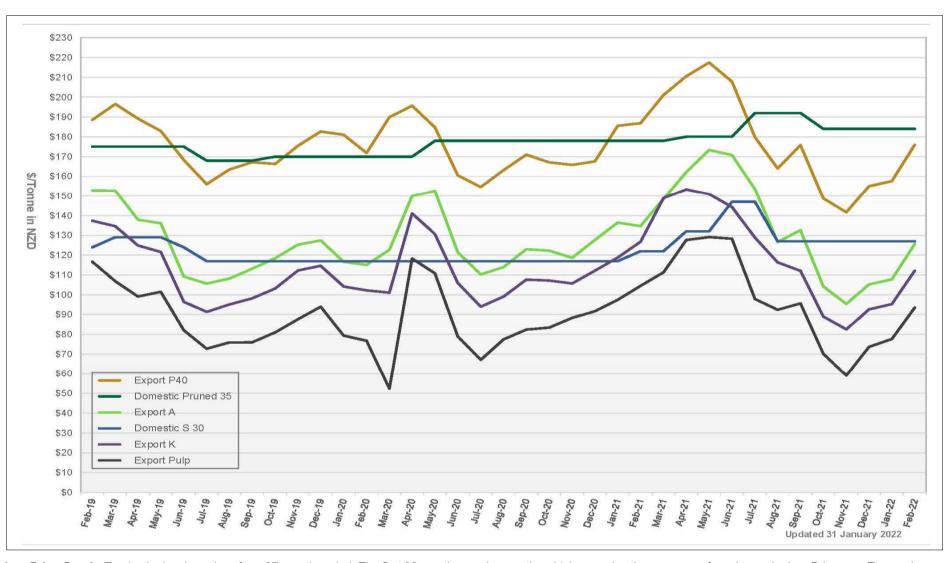
Point of Interest

Fingers crossed the Russians don't invade Ukraine, that would ruin all my predictions.





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.

