



INVESTING IN NEW ZEALAND FORESTS



Timber remains a building material of preference. Pulp based packaging materials have high consumer acceptance.

Investment in plantation forestry enjoys favourable long term prospects. The outlook is for:

- increasing consumption
- falling production in nations that have traditionally been important sources of supply
- increasing bias toward plantation grown logs.

New Zealand is well placed in plantation production. A positive trend in log prices is forecast.

Increasing consumption

Forests provide industrial roundwood logs for construction and packaging. They are also a source of biomass for the production of energy, and conservatories for land stabilisation, water collection and recreation.

Global forest consumption grew from 2.8 billion cubic metres in 1990 to 3.0 billion in 2011.

Falling production

Global supply is constrained in so far as land area in forest has fallen from 31.6 percent of total land area in 1990 to 30.6 percent in 2015. With increasing population, the number of hectares per person in forest fell from 0.8 to 0.6 hectares over the same period.

In relation to industrial roundwood logs, there has been a shift in source of supply. Growth in production across Russia, Asia and South America has made up for static to declining production elsewhere.

Figure 1: Production industrial roundwood (million cubic meters)

	1980	2000	2014	Percentage change
USA	327	420	356	9%
Canada	150	198	149	-1%
China	79	96	188	138%
Brazil	61	103	144	136%
Sweden	44	57	64	45%
Indonesia	30	48	62	107%
India	19	41	49	158%
Russia	-	145	188	
Other	731	572	643	-12%
TOTAL	1,441	1,680	1,843	28%

Source: www.worldbank.org

Plantation bias

In the past, most of the world's demand for logs has been satisfied from non-renewable natural forests. Attention is shifting to plantation forests. In 1990 4 percent of forest area was plantation forest, increasing to 7 percent in 2015.

The switch to plantation logs is being re-enforced by climate change initiatives encouraging new planting. In Article 5 of the recently concluded Paris Agreement on arresting climate change, most governments across the world accepted encouragement to:

...take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the convention for: policy approaches and positive incentives for activities relating to

reducing emissions from deforestation and forest degradation, and the role of forests and enhancement of forest carbon stocks in developing countries, and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.

The practical implication of the Agreement is likely to be a shift away from production of logs from natural forests to production from plantation forests.

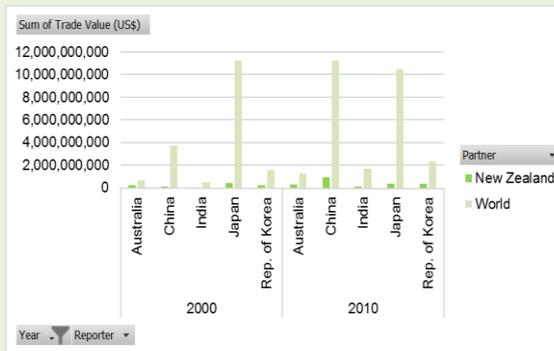
New Zealand well placed

New Zealand is a world leader in plantation forestry. It has a well established research, silviculture, harvesting and export infrastructure.

New Zealand is also a favourable place to do business. It scores highly in world rankings for probity, ease of business, protection of minority interests and taxation transparency.

New Zealand is a small exporter to high consumption countries in its region.

Figure 2: Imports from large importers in proximity to New Zealand (USD million)



Source: www.comtrade.un.org

In the past decade five of the top twenty countries for volume growth in importation of wood product were in New Zealand's region: China, India, Vietnam, Korea and Australia. Long term economic forecasts suggest a continuing increase in demand across the Asia-Pacific region.

Figure 3: Growth in log imports (USD million)

	2000	2010	Growth
China	3,796	12,173	8,377
Germany	4,469	8,078	3,608
France	2,430	4,636	2,205
Italy	3,526	5,265	1,739
Austria	1,326	2,636	1,310
India	517	1,825	1,308
United Kingdom	4,031	5,300	1,269
Viet Nam	161	1,185	1,024
Belgium	1,753	2,776	1,023
Poland	382	1,340	958
Switzerland	792	1,739	947
Netherlands	1,870	2,796	926
Canada	2,116	3,041	925
Rep. of Korea	1,794	2,658	863
Saudi Arabia	379	1,234	855
Turkey	326	1,098	773
Russian Federation	95	861	766
Norway	760	1,509	748
Sweden	1,102	1,841	739
Australia	864	1,509	645

Source: www.comtrade.un.org

The predominant species in New Zealand is *Pinus Radiata*. It has excellent nailing, gluing and painting properties in construction. It is an established feedstock for the manufacture of packaging and paper.

Due to favourable growing conditions, crop rotation in New Zealand is efficient. Rotation is on a 26-30 year cycle. Three rotations are possible within a person's life time. Other plantation exporting nations have longer rotation times so will be slower to respond to increasing consumption, falling production in nations that have traditionally been important sources of supply and increasing bias toward plantation grown logs.

Positive forecast

Plantation log prices fluctuate month to month based on a variety of factors including weather conditions, exchange rates and end user production levels. The five year harvest window at maturity enables a degree of control as to when logs enter the market for best return. Over the past decade log prices have increased moderately. They have returned to levels experienced in the prior decade.

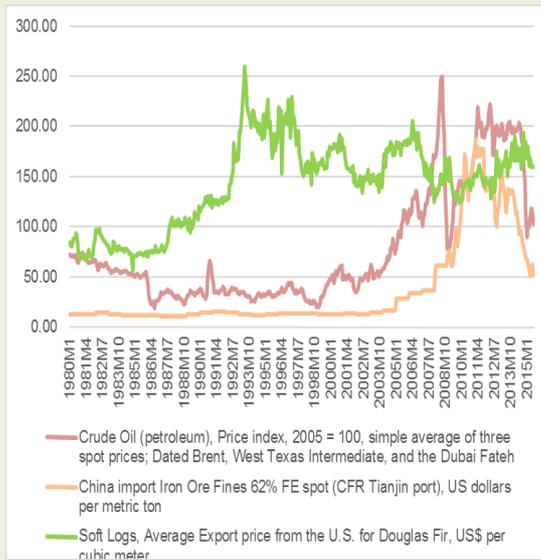
Figure 4: Export pruned (NZD per cubic metre)



Source: Ministry of Primary Industries

The price trend over the past decade has been reliable against the trend for iron ore as a substitute input for construction and oil as a substitute input for packaging materials.

Figure 5: Commodity price trends



Source: www.imf.org

Independent forest investment researcher FIM Services based in the United Kingdom comments in its 2015 Global Timber Outlook that:

- *Global consumption of industrial roundwood is still some 3 percent below pre-recession levels*
- *A decline in consumption of sawnwood in the developed world, which was reduced substantially by the 2008 recession (consumption is still 27 percent below the 2005 peak) has largely been offset by increased consumption in developing countries (consumption is now 47 percent higher than in 2005)*
- *Continued recovery in consumption in the West, combined with further growth in the developing world and an increase in energy*

generation from biomass will increase global timber consumption to record levels

- *The forecast rise in global demand for timber will continue with increasing constraints on supply, factors which are likely to have a material effect on global timber prices, to the benefit of timberland investors...*
- *Rising timber prices will drive forest land and plantation prices higher*

The World Bank's 2016 market projections are for price stability in log trade despite the decline in other commodity prices through the period of adjustment in Chinese and European economies.

Figure 6: World Bank South East Asian log price forecast (USD per cubic metre)



Source: www.worldbank.org

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