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Forestry and Wood Products Report 2014

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Report Highlights:

The log harvest hit a record level in 2013 of 29.5 million cubic meters in order to supply a 25% increase in raw log volumes exported to off-shore markets. China now takes 70% of all log exports and the volume shipped to China in 2013 was up by 36% to 11.29 million cubic meters. Domestic saw millers are finding it difficult to match export log prices and stay profitable.

Executive Summary

After two years remaining stable at 1.720 million hectares, the net stocked area of plantation forestry lifted ever so slightly to 1.729 million hectares in 2013. There isn't really a discernable trend as to where planting will go over the next two to five years. The large forest owners are generally asset class holders not particularly interested in new plantings onto pastoral or reserve land. Despite historically high log prices, other foresters have put off new planting at present because the cash flow advantages associated with accumulating carbon credits are minimal. The importance of forestry for environmental sustainability hasn't really percolated through the other primary sectors yet.

Demand for log exports by China has pushed the New Zealand log harvest to a record 29.5 million cubic meters for the year through September 2013, up 11% compared to the previous year. The log harvest for the September 2014 year is expected to be around 30 million cubic meters. New Zealand is heading for a peak harvest of around 36 million cubic meters between 2019 and 2021, five to seven years earlier than the Government had originally forecast.

Raw log exports accounted for the lion's share of the 2013 harvest at 16.15 million cubic meters as of September 2013, representing 55% of the total harvest compared with 49% in 2012. Timber and wood product production has been stable at 5.54 million cubic meters per annum for the last two September years, but a declining share of total log harvest going from 21% in the September year 2012 to 19% in the same period for 2013.

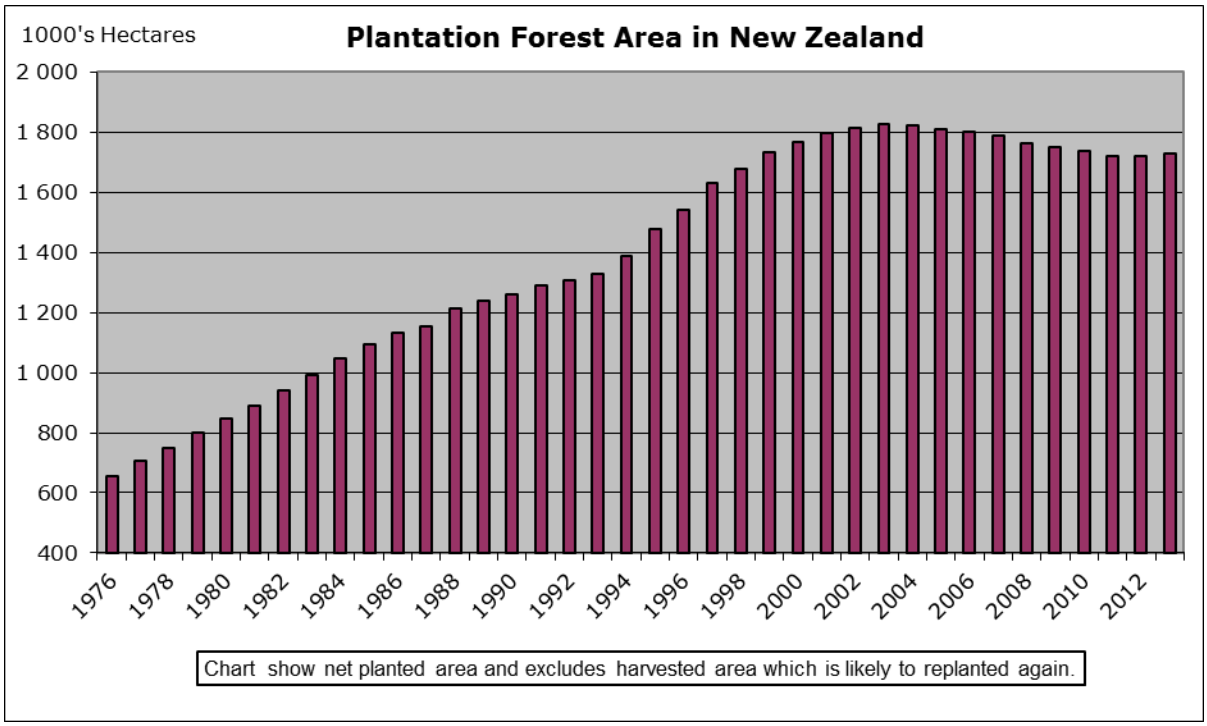
The high log prices are making it difficult for the domestic saw millers, who face flat demand globally for lumber and other wood products at prices that are profitable for them. The appreciating NZ dollar is not helping their cause either.

As a consequence of export log quantities being up 25%, the overall value of forest product exports (excluding pulp and paper) was up 21% to USD3.01 billion. Exports to China, the number one destination for New Zealand, were up by a massive 58% in value for the year through September 2013. While volumes of lumber into the US are limited, it is a high margin market and still the sixth most valuable destination for New Zealand forest product exports.

Pulp and paper exports were down 3% to USD895 million in the year to September 2013. Norske Skog closed a paper mill in January 2013 citing a lack of international demand. It is unlikely export quantities will recover from this reduction in the short to medium term.

(Note: the marketing year here (MY) is defined as the 12 months to the end September.)

Forest Area 2013-14



The net planted area as of April 2013 has stabilized at 1.729 million hectares (ha) up just 8,000 ha from the previous year. It is likely that the net stocked area will be similar again in 2014. A definite trend one way or the other is difficult to discern at present. The main dynamics at play are discussed here.

The positives for increased planting are:

- Relatively high log prices overall and unpruned export grades at historical highs.

- Modern pine plantations are growing at 20 cubic meters of wood per ha per year. A well-tended stand could be gaining net value at the rate of NZ$1,800 per ha per year. This would be better than most sheep and beef farms can achieve for annual revenue per hectare. The draw back for forestry is the cash flow disadvantages:- all the establishment costs are incurred in the first ten years but it is a 27 to 32 year wait from planting to realize the value at harvest.

- If the carbon price in the New Zealand Emissions Trading Scheme goes up from the $2 or $3 per ton of Carbon (as CO2 sequestered in the trees) to a $10 to $20 range again this will tend to encourage planting as this will assist cash flow during the trees lifetime if the carbon credits are sold.

- As environmental limits for Nitrates, Phosphates, and sediment discharges are tightened up around the country, some farmers may take the opportunity to plant blocks of trees to provide environmental services (i.e. reduce average phosphate run-off, nitrate leaching, and sediment run-off). This could offset having to reduce production of milk or meat to meet reduced limits.

The negatives against new planting, even encouraging de-forestation are:

- The largest forest owners are asset class holders who are not looking to invest in green-field planting of new forests.

- If the carbon price stays low and interest rates trend upwards as expected this will reduce confidence for new planting.

- De-foresting in the Central North Island to make way for a land-use change to dairying is a profitable switch at the moment on the flat to rolling land. There is a carbon emission penalty but this only costs approximately $2000-$3000/ha now compared with the NZ$20,000 to NZ$25,000 when carbon prices were around NZ$20/ton CO2.

- A deforestation survey carried out in 2013 suggested that there was a sentiment to deforest 60-70,000 ha over the next 8 to 10 years.

Log Harvesting 2013

The log harvest for the year ending September 2013(MY) was up 11% year-on-year to reach 29.5 million cubic meters. This boost was primarily driven by demand for export logs to be shipped to China.

Demand from China is not forecast to lessen. Consequently it is thought the harvest for the next twelve months will be similar at just under 30 million cubic meters.

The harvest volume is tracking above where the Ministry for Primary Industries (MPI) thought it would be. Owing to the bulge in planting in the early 1990's, the MPI forecasts for the harvest volumes show an expected to peak somewhere around 36 million cubic meters over the next 10 -15 years (2024 to 2029). However going on the harvesting trend over the last three to four years that peak could be reached earlier in another five to seven years if pricing for logs remains the same.

If logging recoveries were optimized and increased growth rates were achieved with better genetics, and silva-culture was optimal the existing planted areas could support an annual harvest at a level of 40 million cubic meters.

National Exotic Forest Estate Statistics					
Area and standing volume at: (note 1)	**1-Apr-09**	**1-Apr-10**	**1-Apr-11**	**1-Apr-12**	**1-Apr-13**

Forest area					
Net stocked area (ha)	1 751 000	1 738 000	1719400	1720840	1728500
Harvested area awaiting replanting (ha) (note2)	46 400	55 300	54300	57534	51869
Total forest area	1 797 400	1 793 300	1773700	1778194	178369
Growth characteristics					
Standing volume (000 m^3)	456 874	467 063	479709	488437	512137
Average standing volume (m^3/ha)	261	269	279	284	296
Area-weighted average age (years)	15.6	15.9	16.3	16.4	16.8
Area by species (note3)					
Radiata pine (ha)	1 568 000	1 556 000	1545000	1543600	1553700
Douglas-fir (ha)	109 000	110 000	107000	107900	106500
Cypress species (ha)	9 000	10 000	10000	10400	10123
Other softwoods (ha)	26 000	25 000	24000	24000	23581
Eucalyptus species (ha)	25 000	24 000	22000	23000	21985
Other hardwoods (ha)	13 000	13 000	13000	13000	12579
Radiata pine area by tending regime					
Pruned with production thinning (ha)	216 000	217 000	210000	207000	203347
Pruned without production thinning (ha)	728 000	708 000	700000	692000	687225
Unpruned with production thinning (ha)	31 000	37 000	35000	41000	40838
Unpruned without production thinning (ha)	593 000	593 000	599000	603000	622321
Planting statistics Year ended (note 4)	**31-Dec-08**	**31-Dec-09**	**31-Dec-10**	**31-Dec-11**	**31-Dec-12**
Total estimated new planting (ha) (note5)	1 900	4 300	6000	12000	11500
Replanting (ha) (note6)	31 300	32 500	35226	39253	45154
Harvesting statistics Year ended (note7)	**31-Mar-09**	**31-Mar-10**	**31-Mar-11**	**31-Mar-12**	**31-Mar-13**
Area clearfelled-all species (ha)	41 800	43 500	43300	44618	50342
Area clearfelled-radiata pine (ha)	37 700	39 200	39800	41066	47384
Volume clearfelled-all species (000 m^3) (note6)	19192	20588	21725	23567	26296
Volume production thinned-all species (000 m^3) (note6)	190	146	201	95	307
Total volume removed -all species (000 m^3) (note6)(note8)	19 382	20 734	21926	23662	26603
Average clearfell yield -all species (m^3/ha) (note6)	459	473	506	530	522
Volume clearfelled -radiata pine (000 m^3) (note6)	18 095	19 192	20493	22215	25131
Average clearfell yield - radiata pine (m^3/ha) (note6)	480	489	515	559	530
Area-weighted average clearfell age for radiata pine (years)	28.3	28.4	28.6	28.8	27.7

Notes:

1. Source: National Exotic Forest Description as at 1 April, for the year noted, compiled by the Ministry for Primary Industries.
2. In this report, the area of harvested land that was recorded as awaiting a land use decision has been reported in the area awaiting replanting.
3. Individual entries may not add to totals due to rounding.
4. The forestry statistics released in this report, and in particular, new planting estimates, may differ from those produced in the Agricultural Production Survey by Statistics New Zealand. These surveys use different survey frames and designs.
5. The 2011 survey only sought data from owners with 1000 hectares of forest or more. These estimates have been rated up based on the 2010 NEFD survey results for owners with less than 1000 hectares of forest.

6. All volumes are reported as recovered volumes inside bark.
7. These estimates are based on data collected in the 2011 and 2012 NEFD surveys and may differ from the roundwood removals estimate as published in the Annual log and roundwood removal statistics, Ministry for Primary Industries. This is due to the estimate from that source being an indirect estimate that uses conversion factors for each forestry product to estimate the total roundwood input that would be required to produce total forest product outputs.

Estimated Roundwood Removals from New Zealand Forests
(units: 000 cubic meters of roundwood)

Natural Forest		Removals from planted production forests							Total Removals	Year Ended Total Removals
Year Ended	Total Removals	Saw Logs	Peeler Logs	Small Logs	Pulp Logs	Export Chips	Export Logs	Total Plantation Removals		
Sep-08	**6**	1 777	336	322	825	122	1 800	**5 182**	**5 188**	**19 739**
Dec-08	**2**	1 485	263	289	774	63	1 778	**4 652**	**4 653**	**19 399**
Mar-09	**5**	1 433	171	284	781	22	1 547	**4 238**	**4 242**	**18 863**
Jun-09	**1**	1 556	157	275	858	51	2 447	**5 344**	**5 346**	**19 429**
Sep-09	**4**	1 740	194	315	849	68	2 586	**5 752**	**5 756**	**19 998**
Dec-09	**4**	1 691	204	302	896	67	2 241	**5 401**	**5 405**	**20 749**
Mar-10	**5**	1 688	229	289	856	90	2 293	**5 446**	**5 451**	**21 958**
Jun-10	**4**	1 929	284	253	872	85	2 792	**6 214**	**6 218**	**22 830**
Sep-10	**4**	2 003	320	278	974	74	2 717	**6 366**	**6 370**	**23 444**
Dec-10	**4**	1 660	285	247	914	99	3 084	**6 288**	**6 292**	**24 331**
Mar-11	**3**	1 579	268	249	922	60	3 086	**6 165**	**6 168**	**25 048**
Jun-11	**4**	1 789	315	320	926	132	3 397	**6 879**	**6 883**	**25 713**
Sep-11	**3**	1 800	316	326	960	111	3 248	**6 761**	**6 764**	**26 107**
Dec-11	**3**	1671	291	307	926	113	3053	**6 362**	**6 365**	**26 180**
Mar-12	**3**	1677	283	302	877	94	2819	**6 052**	**6 055**	**26 067**
Jun-12	**4**	1876	322	324	910	78	3832	**7 341**	**7 345**	**26 530**
Sep-12	**5**	1908	305	330	936	78	3195	**6 752**	**6 756**	**26 521**
Dec-12	**3**	1791	236	308	901	124	3927	**7 287**	**7 290**	**27 323**
Mar-13	**5**	1599	225	317	814	84	3709	**6 747**	**6 752**	**28 045**
Jun-13	**6**	1931	263	312	838	80	4133	**7 557**	**7 563**	**28 298**
Sep-13	**7**	2002	282	321	879	63	4377	**7 924**	**7 931**	**29 536**

Source: MPI

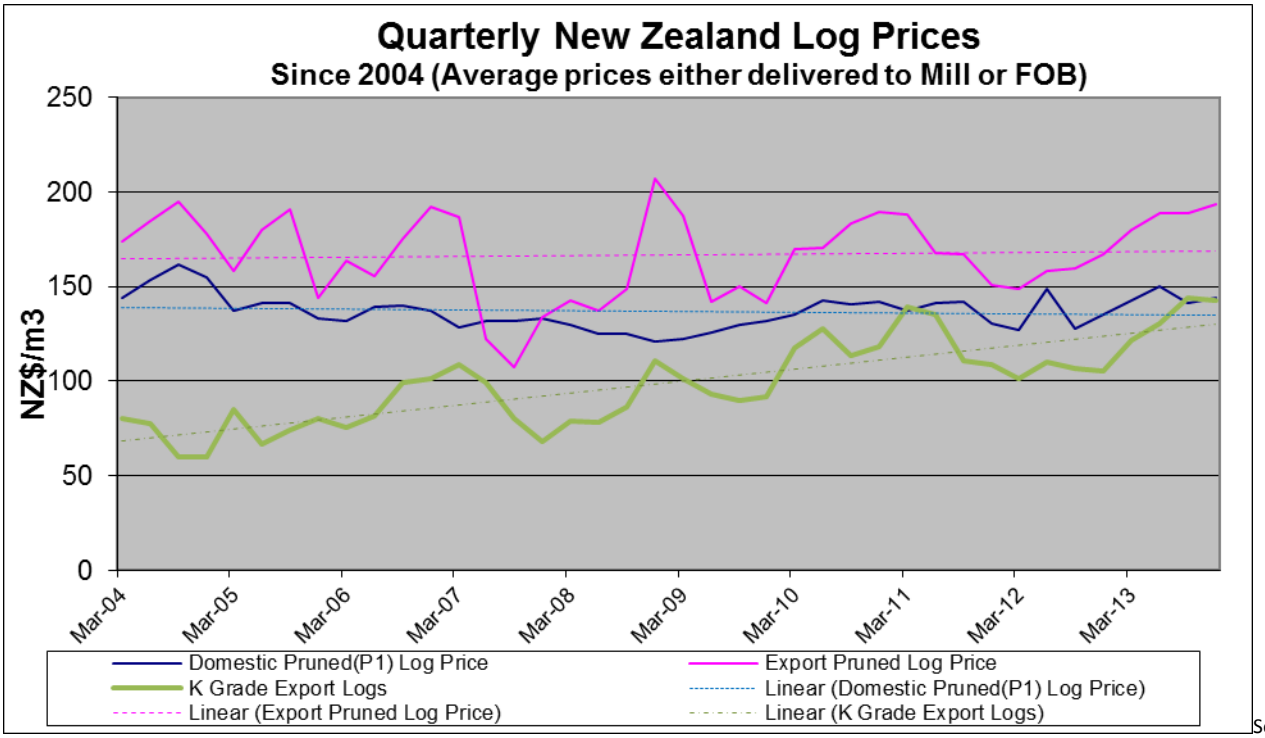
Wood Disposal 2013– Where Did All the Logs Go?

New Zealand Wood Supply & Disposal Reconciliation		
In millions cubic meters		
Years Ending September 30	**2012**	**2013**
Wood Production from Log Harvest	26.52	29.54
Disposed of by:		
Logs Directly Exported	12.89	16.15
Wood Chips exported	0.36	0.35
Timber & Wood Product Production	5.54	5.54
Pulp & Paper Production	3.65	3.43
Residual	4.08	4.07

Source: MPI, StatsNZ, GTA, Post estimates

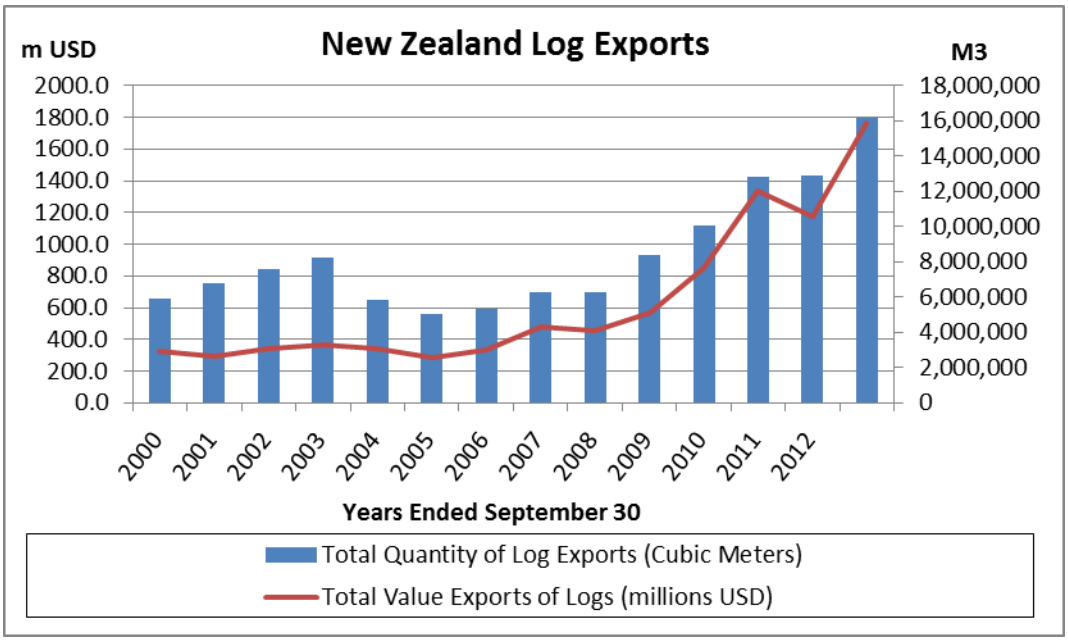
Note: The residual row includes offcuts from the processing sector which gets used for energy co-generation; smaller niche end-uses such as sawdust for animal bedding; and that which goes to waste.

Exports versus Domestic Usage



Source: MPI

Source: GTA, StatsNZ, MPI

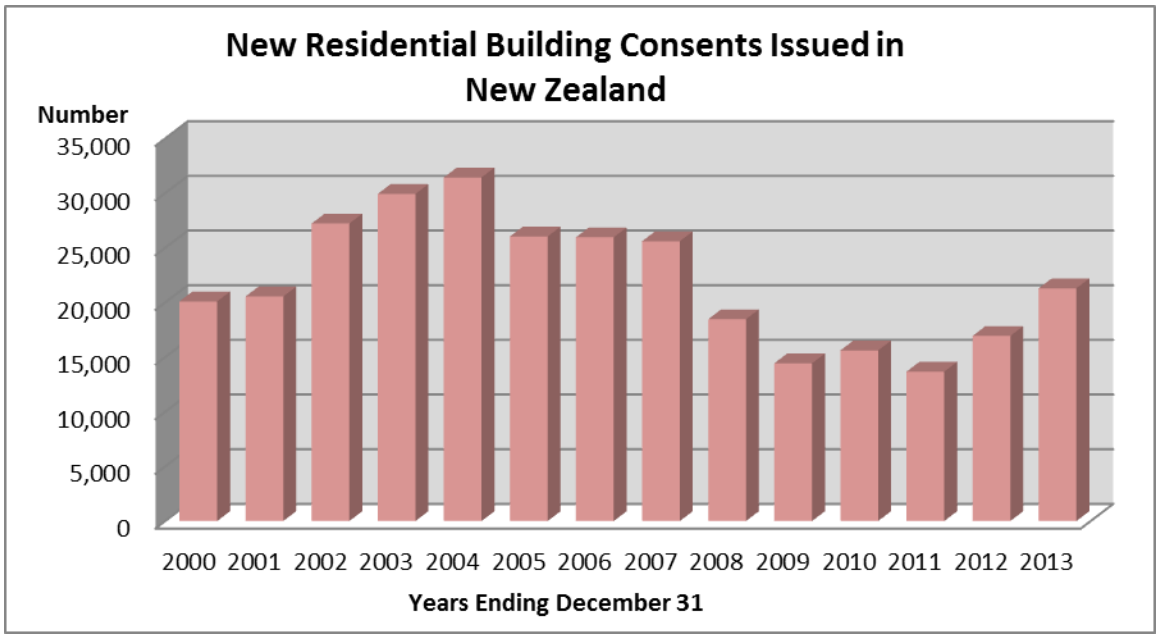


Source: GTA

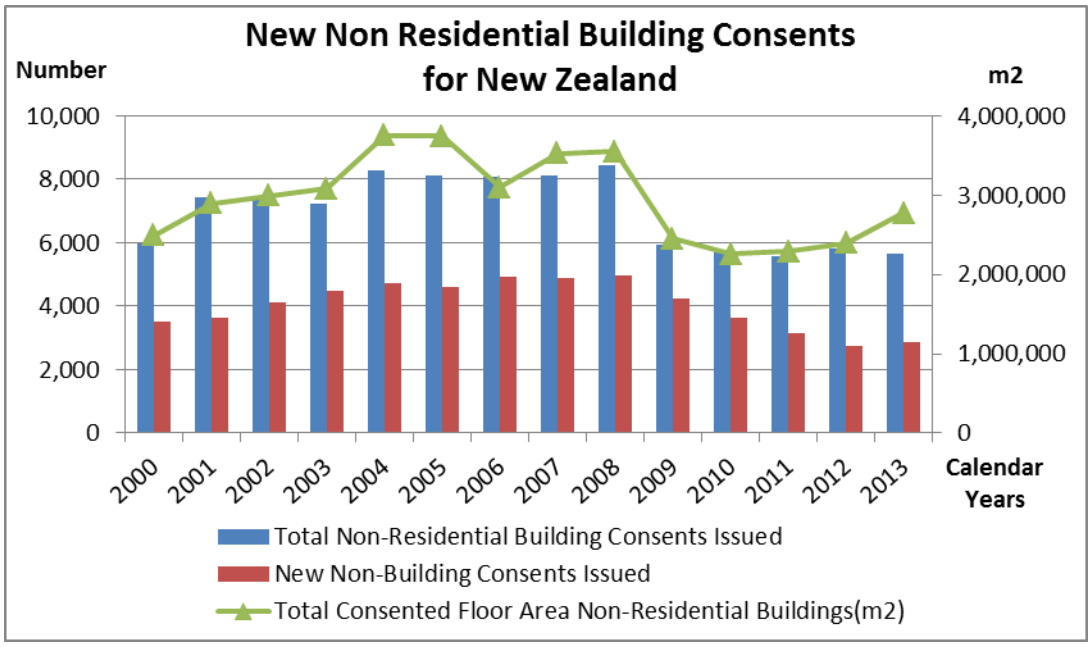
The Domestic Scene

Despite an uptick in residential consents signaling increased housing starts in Christchurch (post 2011 earthquake rebuild) and Auckland (population growth) domestic wood processing volumes remain flat.

The central bank is forecasting that the peak activity in the Christchurch rebuild will occur in 2016 and 2017. The ramp up in demand for wood building products should definitely start to be felt during 2014. In Auckland there are good demographic reasons for demand for additional housing. Central and regional Governments are saying they are working on making it easier to get houses built but actual construction is taking a while to get going. While the New Zealand economy is growing relatively quickly now compared with historical averages (3 to 4% per annum versus 2-3%) there still isn't the confidence to really boost housing starts significantly. Again by 2016 to 2018 the housing construction sector in Auckland should be operating at a significantly higher level when regulatory reform and greater investor confidence mesh productively.



Sources: MPI, StatsNZ



Sources: MPI, StatsNZ

Total New Zealand Wood Processing Classified to Broad Product Type
Shown as the proportion of quantity produced in the year to September for each type is of total output of wood processed

Product Category	Lumber Production	Veneer incl. for use in Plywood & LVL Production	Particle Board Produced	Fiber Board Produced
% of each type 2003	71.7%	10.4%	3.6%	14.4%
% of each type 2013	73.4%	10.9%	2.9%	12.8%

Source: MPI, StatsNZ

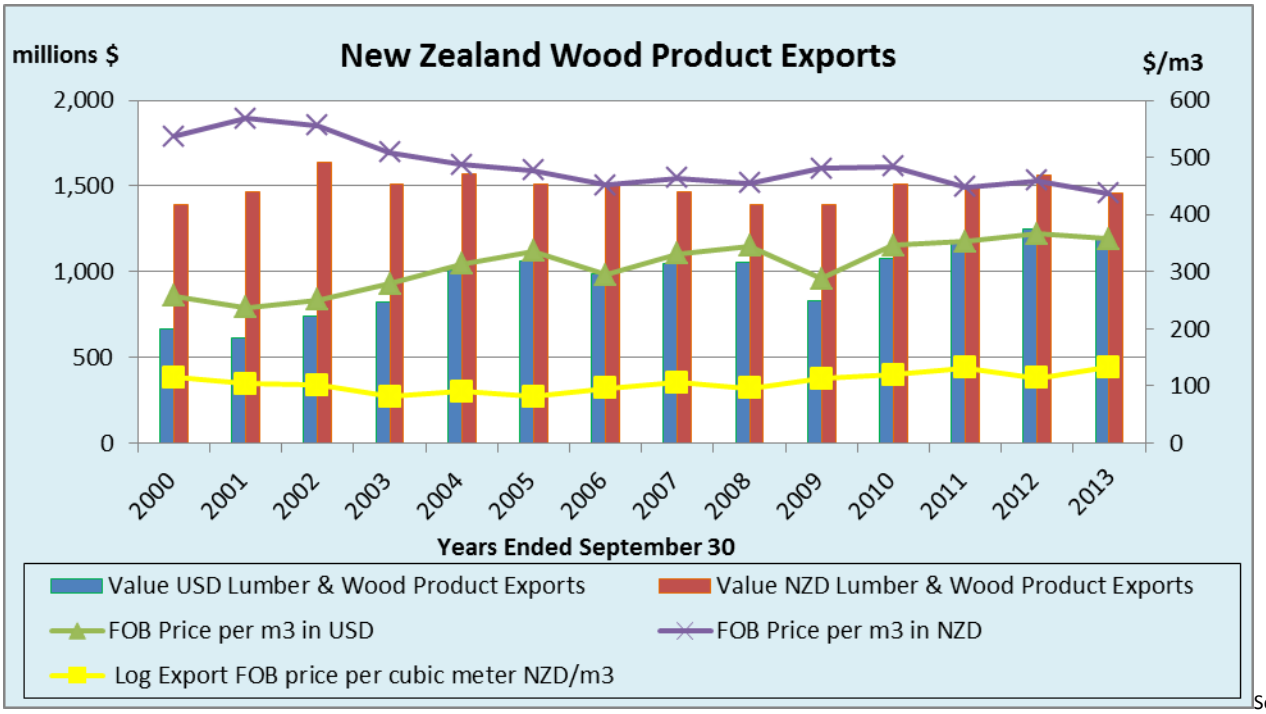
Part of the sectors vision for the future is to take a greater proportion of the wood product output up the value chain. However there is a challenge for the sector to get the modern engineered wood products (cross laminated timber; laminated veneer lumber; wood/steel and wood/plastic composites), which are high value, into common use by engineers, architects, and construction businesses. These products can compete with steel and concrete tilt-slab building methods in the commercial building arena on both initial building costs and from an environmental sustainability angle. However at present the building codes and standards work against these new products and systems. The current central government, rather belatedly, is beginning a review of the building standards.

Some sawmill owners have been in the media complaining they can't get enough logs for their mills. The real problem is they can't afford to pay enough to secure log supply to compete against the prices offered to forest owners for export logs.

The quarterly NZ log price chart, above (page 7), shows this clearly. In the early 2000's domestic pruned prices were a good margin above K grade export log prices. But as the Chinese log demand phenomena got going around the turn of the decade K grade prices moved up to compete head on with domestic prices being offered. This is further illustrated in the NZ Wood Product Exports chart shown below. The appreciation of the NZD has eroded all the gains in pricing in the market place (see the USD price/m3) so that the receipts in NZD have gradually decreased. Compare this with the FOB price/m3 for export logs which has appreciated significantly in the market place and held its own in NZD terms. The margin the sawmiller/wood processor has been receiving over and above the cost of purchasing logs is being squeezed, to the tune of a 30% reduction since 2000. Plant operating costs continue to increase which amplifies the problem.

Exports and Trade

Overall export receipts continue to grow basically on the back of the demand for raw logs coming out of China. This trend is not expected to diminish and at this stage will be volume related as the wood harvest increases rather than increases in value per cubic meter exported.



Source: GTA

New Zealand Export Destinations for Forest Products excl Pulp/Paper by FOB Value							
Year Ending: September							
Partner Country	United States Dollars			% Share			% Change
	2011	2012	2013	2011	2012	2013	2013/2012
China	973,690,099	890,946,871	1,410,877,515	37.89	35.84	46.88	58.36
Japan	355,878,365	376,812,957	348,385,352	13.85	15.16	11.58	- 7.54
Korea South	282,825,127	243,015,443	313,193,744	11.00	9.78	10.41	28.88
Australia	320,998,604	346,186,362	299,393,115	12.49	13.93	9.95	- 13.52
India	161,068,241	142,917,485	163,462,009	6.27	5.75	5.43	14.38
United States	136,270,125	139,707,274	145,821,770	5.30	5.62	4.85	4.38
Vietnam	57,664,224	54,500,933	51,736,561	2.24	2.19	1.72	- 5.07
Taiwan	44,893,713	36,273,913	49,101,640	1.75	1.46	1.63	35.36
Philippines	39,743,403	50,513,482	38,597,162	1.55	2.03	1.28	- 23.59
Indonesia	35,362,941	36,506,755	32,839,454	1.38	1.47	1.09	- 10.05
All Other Destinations	161,583,668	168,563,254	155,838,861	6.29	6.78	5.18	-7.55

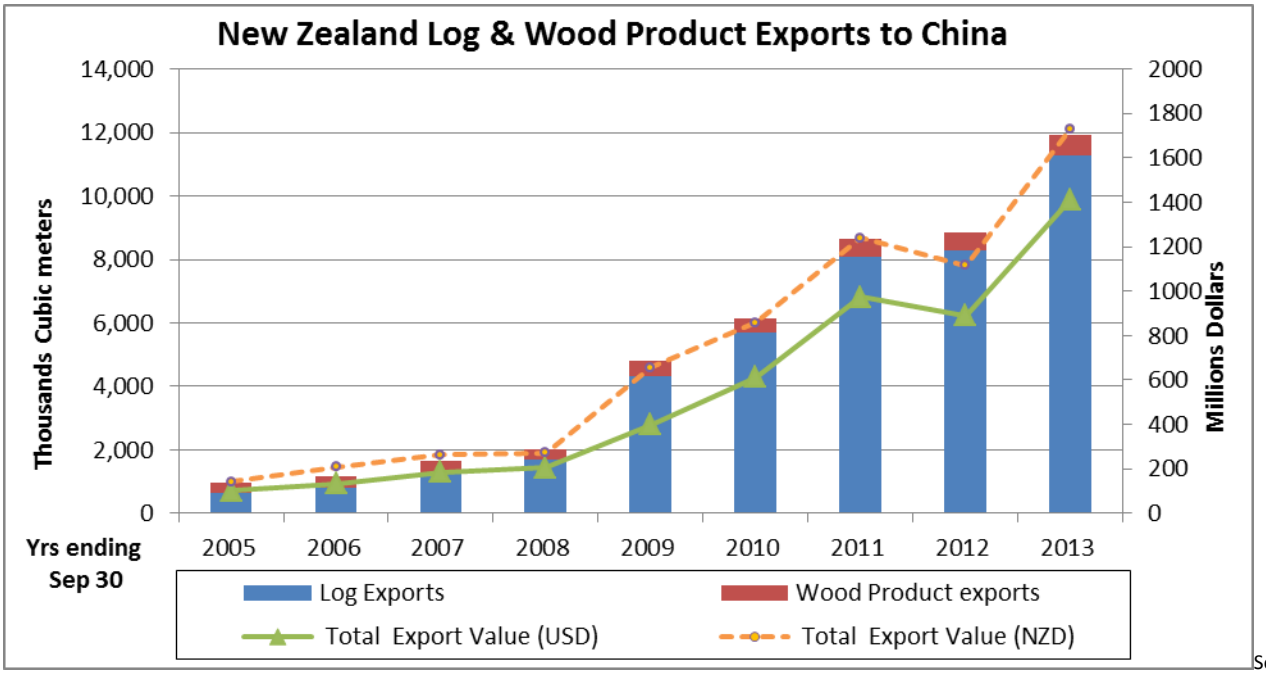
World Total	**2,569,978,510**	**2,485,944,729**	**3,009,247,183**	100.00	100.00	100.00	21.05

Source: GTA

New Zealand Export Destinations for Wood Pulp & Paper by FOB Value							
Year Ending: September							
Partner Country	**United States Dollars**			**% Share**			**% Change**
	2011	**2012**	**2013**	**2011**	**2012**	**2013**	**13/12**
Australia	324,080,515	294,140,345	264,006,486	32.11	31.82	29.50	- 10.24
China	207,481,209	183,540,981	171,069,160	20.56	19.86	19.11	- 6.80
Indonesia	78,061,743	66,762,571	98,624,292	7.73	7.22	11.02	47.72
Korea South	85,229,800	75,444,836	66,885,650	8.44	8.16	7.47	- 11.34
Japan	65,582,218	68,485,538	55,509,084	6.50	7.41	6.20	- 18.95
Malaysia	46,760,112	45,152,844	41,983,588	4.63	4.88	4.69	- 7.02
South Africa	3,052,993	8,897,320	34,605,712	0.30	0.96	3.87	288.95
Philippines	35,189,057	31,974,978	28,820,524	3.49	3.46	3.22	- 9.87
Taiwan	31,227,733	29,560,276	27,019,453	3.09	3.20	3.02	- 8.60
Thailand	32,682,861	30,650,117	22,646,216	3.24	3.32	2.53	- 26.11
All Other Destinations	99,990,827	89,777,381	83,853,584	9.91	9.71	9.37	-6.60
World Total	**1,009,339,068**	**924,387,187**	**895,023,749**	100.00	100.00	100.00	- 3.18

Source: GTA

China

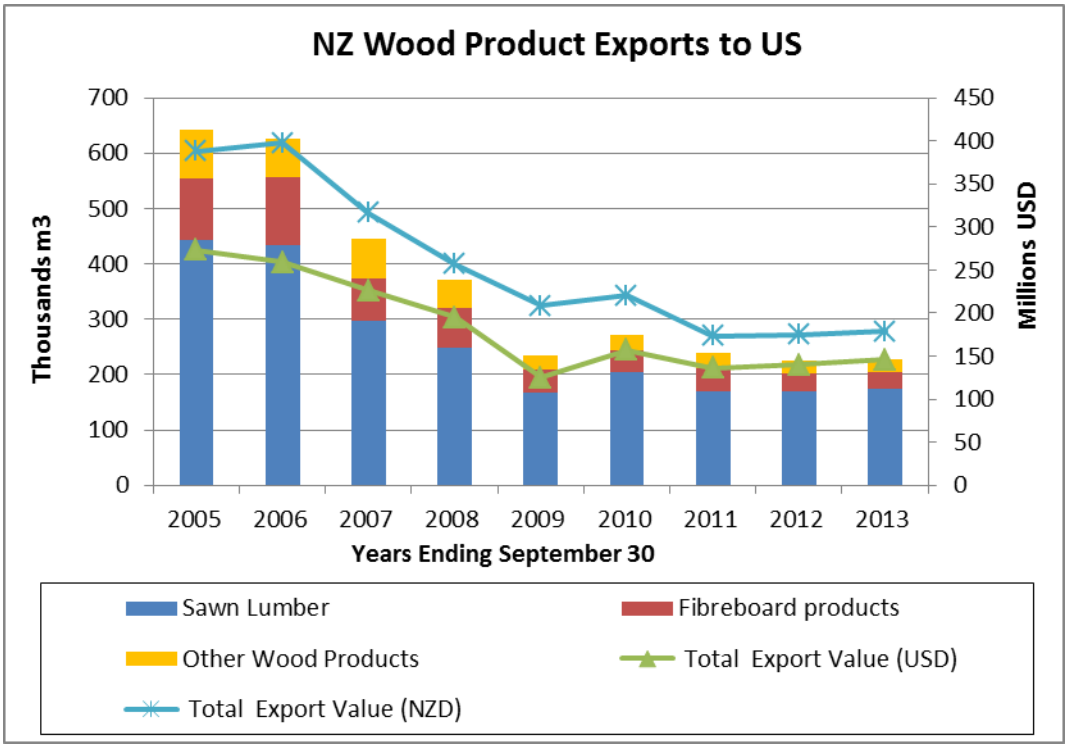


Source: GTA

The Free Trade Agreement (FTA) New Zealand has with China has been a success but there are some side-effects. For example the FTA tariff regime favors log imports in to China over processed wood. As can be seen above lumber and wood product trade remains a very minor component of total exports from New Zealand. A leading forestry/timber sector figure said recently that China is not averse to lumber or wood products imports from NZ but NZ is not cost competitive at the moment for general lumber.

Economists in New Zealand are forecasting demand for logs and timber in China is not going to decrease any time in the near future.

United States



Source: GTA
Note: This analysis does not include wood chips which are relatively minor.

Profitable trade with the US is highly dependent on the level of light commercial and residential building activity in the US and the US/NZ dollar exchange rate. The US seems to be coming out of the residential construction slump brought on by the sub-prime mortgage crisis which is heartening for NZ exporters however the appreciation of the NZ dollar is making it difficult for these exporters to be cost competitive.

It remains though that the US lumber market for NZ exporters is one which has returned, on a cubic meter basis, prices over the last nine years which are on average 59% better than the average for all wood product exports. In addition the pricing trend even in NZ Dollars is upward for the US market whereas for all NZ export destinations the trend, for processed wood products, is flat to downward in NZ Dollars. For the exporters who have good channels into the US market it is lucrative, volumes are just not high enough though.

Other Issues and Policy

New Saw Mills

The reported development of a new international scale saw mill in the Taupo district a year ago has not gone ahead. In the news now are suggestions by the principals of Red Stag Timber (NZ's single largest sawmill) that they would look at investing $NZ120 million in a state of the art one million cubic meter output mill if the government endorses a "wood first" policy for government buildings. New Zealand has approximately 80 sawmills now with an output which could be handled by five to ten international scale mills. There is a lack of profitability in the sector constraining it from rationalizing and developing international scale sawmills capable of competing on a world stage.

Australian Illegal Logging Laws

The industry continues to work with Ministry for Primary Industries to reach an overarching agreement with the Australian Department of Agriculture Forestry &Fishing on NZ's eligibility.

Health and Safety Review

In response to a string of fatalities (11 people in 13 months) as result of logging accidents the NZ Labour Department, part of the Ministry for Business; Innovation; and Employment, is tightening up it's policing of forestry logging sites and crews. The sector is carrying out a wide ranging independent forestry safety review. It's work along with the Labour Department examination of the sector will likely lead to new regulations and codes of practice.

Useful Websites:
MPI: http://www.mpi.govt.nz/
NZ Forest Owners Assn: http://www.nzfoa.org.nz/
Wood Processors Association of New Zealand: http://www.wpa.org.nz/
Structural Timber Innovation Company (STIC): http://www.stic.co.nz/home
Cross Laminated Timber: http://nzwood.co.nz/industry-news/2011/07/05/cross-laminated-timber-comes-to-nz/