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Chile

Solid Wood Products

Annual

2000

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Report Highlights:

Chile's forestry sector is recovering in response to renewed growth in export demand.

Includes PSD changes: Yes
Includes Trade Matrix: Yes
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Executive Summary

In 1999, the total output of Chile's forest sector expanded after last year's decline. The area devoted to commercial forestry grew by almost 38,000 hectares. Export increased by almost 18 percent from $1.66 billion in 1998 to $1.96 billion in 1999.

For 2000 and 2001, production will continue to expand, and the value of Chile's total forest product exports is expected to increase further. Industry sources have indicated that the total export value is expected to reach a record of $2.3 billion. Increasing international prices for most forest products, together with a devaluation of the Chilean currency during the last few months, is expected to contribute to the significant increase of total export value.

Development of Chile's forest products sector has occurred mainly through expanded commercial forestry plantings, with excellent adaptation of radiata pine and eucalyptus plantings to Chile's terrain and climate. Future growth of the forest industry will also occur through development of the relatively untouched and unmanaged native forests in southern Chile. The proposed Native Forest Law, if and when approved, would add 7.5 million hectares to the current resource base of about 1.9 million hectares. However, action on the highly-controversial legislation has been stalled for several years.

Production

Forest Situation

The three main forestry production areas in Chile are: 1) the area between Regions VI (Rancagua) and VIII (Concepcion) where radiata pine and eucalyptus are predominant; 2) Regions IX (Temuco) and X (Osorno/Puerto Montt) which contain both native forests and plantations (radiata, and, more recently eucalyptus); and 3) the extreme southern Regions XI and XII which mostly contain native forests (lenga).

In 1999, total planted area increased by only 37,442 hectares, while in the early 1990's the total planted area increased by more than 95,000 hectares annually. Industry sources indicate that the slowdown in planting was due to a number of factors, including less favorable planting and tax incentives in the new forestry law (DL 701), the high cost of land relative to neighboring countries, and the disruptive activities of ecologists. Nevertheless, total forest production will continue to expand as private tree farms reach harvestable age.

Chile's development of an important forest products sector rests to a great degree with the success of the radiata pine. The radiata matures at 20-24 years in Chile (thinnings are available for use after 15 years), compared to 30 years in New Zealand and Australia, and 40-60 years in North America and Europe. Because of the rapid growth rate in Chile, the wood from the radiata pine is very soft.

Eucalyptus is the second largest single tree species planted in Chile. Plantings have increased at a more rapid pace than radiata for the last few years. Eucalyptus products command higher prices and can be harvested even sooner than radiata pine. By December 1999, over 340,000 hectares were planted. Eucalyptus has great potential in Chile since it can be harvested after only 10 to 15 years (compared to approximately 20 years for radiata pine). Eucalyptus growth capacity is up to 30 CUM per hectare per year.

Present estimates put total native forests at 13.4 million hectares. According to the industry , out of this total an estimated 7.1 million hectares are considered to be productive. The exploitation of the mostly over-mature native forest consists primarily in selective cutting, mainly wood for chip production. Chilean native forests possess numerous tree species that have no known European or North American counterpart.

Annual Coniferous Growth Rate

Country	Growth Rate (m^3/ha/yr)
Chile	24.0
New Zealand	20.0
United States	3.0
Sweden	2.9
Canada	2.2

Total Chilean Radiata Pine and Eucalyptus Plantings
December 1999
(In Hectares)

Region	Eucalyptus	Radiata Pine
I (Northern border)	210	-
II	1	-
III	964	1
IV	2,270	655
V	42,134	14,806
Metropolitan	10,932	1,002
VI	28,640	65,116
VII	23,119	358,030
VIII	116,115	636,795
IX	71,336	255,785
X	46,694	126,130
XI	-	-

Total *	342,415	1,458,320

*Limited plantings exist in Regions XI and XII.

Radiata Pine: Distribution by Age
(Hectares)

Age in Years	1965	1980	1990	1999
0-5	19,663	303,994	325,626	428,478
6-10	52,612	192,220	344,426	290,676
11-15	86,233	76,959	396,240	317,939
16-20	69,858	51,974	142,772	279,891
21-25	27,003	44,655	40,307	114,663
26-30	4,395	33,898	10,363	19,909
31 or more	921	13,239	9,365	6,108

Source: Chile's Forestry Institute (INFOR).

Forestry Subsidy Program

Chile's new Decree Law (DL) 701, is mainly directed at assisting small farmers. Planting costs are subsidized by as much as 90 percent for the first 15 hectares and 75 percent for the remainder. A subsidy of 15 percent of planting costs is available for larger-scale farmers, but only when they are planting land which has been severely eroded or land that can only be used for reforestation. A maximum of US$15 million yearly is destined for this purpose. Special land tax exemptions are also part of the program. During 1999, a little over 31,000 hectares qualified for the planting subsidy, with payments totaling $10.1 million. Less than a 1,000 hectares qualified for the trimming subsidy with disbursements of $27,500, and a little over 2,400 hectares received subsidized management payments of $5,300. The combined subsidy costs incurred under DL-701 during 1999 totaled only $10.1 million, up from $7.6 million in 1998. The Chilean government has paid total subsidies of $192.3 million from 1974 to the end of 1999.

DL - 701 PAYMENT SUMMARY

	Subsidy Amounts (US$ million		Area Subsidized (hectares)
	Period	Total	Total
Trimming	1983-99	12.7	407,159
Management	1978-99	28.2	7,108,259

Reforestation	1976-99	151.4	1,000,650

` Source: Instituto Forestal (INFOR).

Additionally, a proposal called the "Law for the Recovery and Promotion of the Native Forest" has been sitting in the Congress since 1992. The bill has gone through lengthy discussions and has still not been approved. It would provide a framework for the sustainable management of Chile's extensive native forests.

Trade Policy

Although Chile has signed trade agreements with many countries, among them Mexico, Canada and the Mercosur, these are not Chile's most important forest products trading partners. Presently, Chile has a zero duty agreement with Canada and Mexico for exports and imports, and reduced duties with Mercosur depending upon the product. For all other countries, Chile has a 9 percent import duty.

Forest Production

Chilean total roundwood production increased again in 1999 after a slight fall in 1998. For 2000 and 2001, production is expected to grow further as tree farms reach maturity and are harvested for lumber. Approximately 68 percent of Chile's roundwood output is used by the forestry industry. The remainder is used for firewood. Commercial utilization of roundwood includes pulp, wood chips, sawnwood and lumber production. At least one half of the population in Chile uses firewood in homes for heating and cooking purposes.

Tree farm thinnings are the main source of roundwood for pulp logs. Wood chips are mainly a by-product of sawmill operations. In spite of government intentions to control native forest exploitation, small-scale farmers continue clear cutting for woodchips and firewood.

CHILE: Roundwood Production			
	Forest Area (Thousand Ha.)		Roundwood Harvest (1,000 M^3)
	Planted	Native	
1991	1,555	7,616	25,203
1992	1,572	7,616	27,821
1993	1,694	7,493	29,303
1994	1,748	7,493	31,066
1995	1,818	7,493	34,956
1996	1,836	7,123	33,388
1997	1,882	7,123	34,056

1998	1,914	7,123	31,672
1999	1,952	7,123	33,972

Source: Chile’s Forestry Institute (INFOR).

Forest Exports

In 1999, Chile's forest product exports totaled US$1.96 billion, up from $1.66 billion the year before. For 2000 exports of the forestry sector are expected to increase as prices for cellulose have recuperated, and demand for wood chips, logs for pulp and lumber are increasing again in Chile’s main export market.

The U.S. was Chile's largest export market again in 1999, accounting for almost 25 percent of total exports, followed by Japan with close to 15 percent of total exports.

Chile’s Forestry Exports by Destination
(US$ Million, FOB)

Country	1996	1997	1998	1999
United States	233.2	318.3	358.0	486.1
Japan	347.5	362.4	253.3	271.0
So. Korea	227.7	205.9	48.0	109.0
Argentina	88.6	90.5	85.7	102.1
China	67.9	61.7	91.2	98.9
Belgium	116.7	107.3	122.4	92.7
Taiwan	92.0	92.1	65.4	88.6
Others	634.3	591.7	636.5	706.7
Total Exports	1,807.9	1,829.9	1,660.5	1,955.1

Source: Chile’s Forestry Institute (INFOR).

Chile’s Forest Product Exports by Major Commodity
(US$ Million, FOB)

Commodity/Product	1997	1998	1999
Sawnwood	217.4	176.9	172.0
Wood Chips	147.0	130.5	133.0
Plywood and Boards	110.4	86.6	115.7
Roundwood Logs	106.9	23.2	47.1
Other	482.4	481.9	640.5
Total Forest Product Exports	1,064.1	899.1	1,108.3
Wood Pulp	689.2	692.3	762.7
Newsprint	76.6	69.1	84.1
Total Forest Sector Exports	1,829.9	1,660.5	1,955.1

Source: Chile’s Forestry Institute (INFOR).

Wood Chips

Chile's wood chip output in 1999 ended the year larger than both our previous estimate and last years production. This is attributed to an increase in export demand as Asian countries' economies began recovering. The preliminary 2000 estimate and the 2001 forecast are both higher for the same reason, and we expect further expansion in coming years.

PS&D Table – Wood Chips

PSD Table						
PSD Table						
Country	Chile					
Commodity	Wood Chips				(1000 MT)	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	4600	4837	4800	5800	0	6400
Imports	0	0	0	0	0	0
TOTAL SUPPLY	4600	4837	4800	5800	0	6400
Exports	2340	2410	2460	3000	0	3250
Domestic Consumption	2260	2427	2340	2800	0	3150
TOTAL DISTRIBUTION	4600	4837	4800	5800	0	6400

Export Trade Matrix - Wood Chips

Export Trade Matrix			
Country	Chile		
Commodity	Wood Chips		
Time period	Jan-Dec	Units:	M.T.
Exports for:	1998		1999
U.S.	0	U.S.	0
Others		Others	
Japan	2253430	Japan	2410058
Taiwan	32838	Spain	15
Total for Others	2286268		2410073
Others not Listed	0		0

Grand Total	2286268		2410073

Chile's Wood Chip Production
(In Thousand Metric Tons)

Year	Total	Radiata Pine	Native	Eucalyptus
1992	4,024	1,555	1,643	827
1993	4,746	1,794	2,146	806
1994	4,170	1,684	1,870	616
1995	6,073	2,412	2,569	1,065
1996	4,996	2,373	1,757	857
1997	4,926	2,199	1,791	935
1998	4,487	2,031	1,338	1,112
1999	4,837	2,241	1,016	1,544

Source: Chile's Forestry Institute (INFOR)

Chile has a large number of chipping facilities with widely varying capacities. Most facilities are located in Region VIII (Concepcion). Over 50 percent of Chile's wood chip production is exported, with over 99 percent goes to Japan for the paper and pulp industries.

Chile's Wood Chip Exports for 1999

Type	Volume Thousand MT	Value Million US$	Unit Value US$/MT
Radiata Pine	0.0	0.0	0
Eucalyptus	1,452.4	90.3	62
Native Forest	957.7	42.8	45
Total	2,410.1	133.0	na

Softwood Logs

Total softwood log production expanded significantly more in 1999 than both our previous estimates and last years output. A strong comeback of the demand by South Korea for logs for lumber, which is Chile's principal export market is the main reason for the expansion. For 2000, the preliminary estimate is a further increase in production, as export demand for logs for lumber has been increasing during the first half of this year. The forecast for 2001 projects this trend to continue

PS&D Table – Soft Logs

PSD Table						
Country	Chile					
Commodity	Softwood Logs				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Production	9800	11434	10100	12500	0	13700
Imports	0	0	0	0	0	0
TOTAL SUPPLY	9800	11434	10100	12500	0	13700
Exports	250	490	500	520	0	570
Domestic Consumption	9550	10944	9600	11980	0	13130
TOTAL DISTRIBUTION	9800	11434	10100	12500	0	13700

Export Trade Matrix – Softwood Logs

Export Trade Matrix			
Country	Chile		
Commodity	Softwood Logs		
Time period	Jan-Dec	Units:	CuM
Exports for:	1998		1999
U.S.	0	U.S.	0
Others		Others	
So. Korea	151848	So. Korea	340523
Japan	124292	Japan	91551
Turkey	52993	Turkey	27999
Morocco	6847	India	27904
Hong Kong	700	Morocco	2830
Spain	98	Taiwan	52

		Spain	51
Total for Others	336778		490910
Others not Listed			
Grand Total	336778		490910

Average Softwood Log Prices
US$ Per M^3

	1980	1984	1994	1995	1996	1997	1998	1999
Export	54	33	63	67	65	62	52	49
Domestic	18	12	38	41	42	42	39	35
CH$/US$	39.0	98.3	420.2	396.8	412.3	419.3	460.0	508.8

Source: Chile's Forestry Institute (INFOR).

Softwood Lumber

Chile's softwood lumber production for 1999 resulted larger than our previous estimate, mainly due to stronger export demand for sanded softwood lumber. For current year 2000, production is estimated to be higher yet as export demand is stronger and the local construction business is recovering. For 2001, softwood lumber production is projected to continue this upward trend

Although declining in importance relative to other forest industry sectors, saw milling is a traditional activity in Chile and remains the single largest consumer of logs, with pine logs making up close to 80 percent of total inputs. Close to a third of the lumber produced is exported, mostly output from larger sawmills. The remaining two-thirds is consumed locally. Although production of softwood lumber is expected to grow in the next few years, exports will probably not grow at the same rate because the industry is trying to add value to its output by increasing manufacture of exportable wood products. In the coming years, however, as the availability of knot-free lumber increases, exports of softwood lumber will surely rise. Increasing knot-free lumber is the result of successful management of radiata pine forests under DL-701, which subsidizes pruning and forest management.

PS&D Table – Softwood Lumber

PSD Table						
Country	Chile					
Commodity	Softwood Lumber				1000 CUBIC METERS	
	Revised	1999	Preliminary	2000	Forecast	2001
	Old	New	Old	New	Old	New

Market Year Begin		01/1999		01/2000		01/2001
Production	4350	4933	4500	5650	0	6200
Imports	0	0	0	0	0	0
TOTAL SUPPLY	4350	4933	4500	5650	0	6200
Exports	1320	1418	1450	1590	0	1750
Domestic Consumption	3030	3515	3050	4060	0	4450
TOTAL DISTRIBUTION	4350	4933	4500	5650	0	6200

Export Trade Matrix – Softwood Lumber

Export Trade Matrix			
Country	Chile		
Commodity	Softwood Lumber		
Time period	Jan-Dec	Units:	CuM
Exports for:	1998		1999
U.S.	201231	U.S.	359393
Others		Others	
Japan	320465	Japan	418935
U.A.Emirates	167126	Saudi Arabia	117638
Saudi Arabia	108696	U.A.Emirates	81023
Dom.Republic	79334	Taiwan	68678
Egypt	72408	U.K.	63526
U.K.	61940	Morocco	59855
Morocco	40044	So. Korea	41697
Taiwan	38873	Dom.Republic	38802
Oman	18728	Kuwait	31937
Kuwait	16848	Oman	18597
Total for Others	924462		940688
Others not Listed	103458		117504
Grand Total	1229151		1417585

Average Softwood Lumber Prices
US$/$M^3$

	1980	1984	1994	1995	1996	1997	1998	1999

Export	113	79	163	180	168	172	146	136
Domestic	76	31	91	99	102	100	90	80
CH$/US$	39.0	98.3	420.2	396.8	412.3	419.3	460.0	508.8

Source: Chile's Forestry Institute (INFOR).