

Forest Products

News Reports

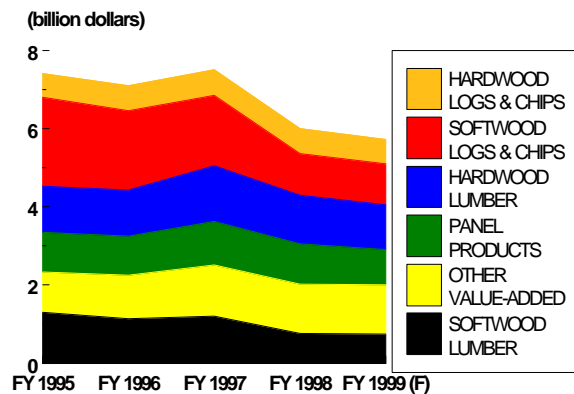
Fiscal 1999 Outlook for U.S. Forest Products Trade: U.S. Solid Wood Exports to Decline Slightly; Imports May Increase Further

By Roseanne Freese, Economist

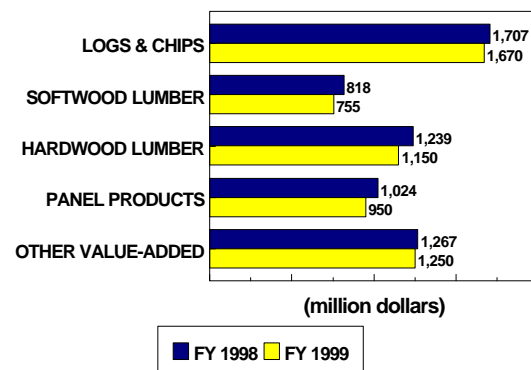
Commodity and Market Export Highlights

U.S. solid wood exports in fiscal year (FY)1999 are forecast to decline by three percent, falling from \$6.0 billion in FY 1998 to \$5.8 billion in FY 1999. While exports of most products are forecast to drop slightly, these declines are far less significant than the 20 percent reduction in overall export sales experienced in FY 1998. Last year's sharp decline was due primarily to the sharp drop in Japanese wood products consumption and imports.

DECLINE IN U.S. SOLID WOOD EXPORTS TO SLOW IN FY 1999 – EXPORTS PROJECTED DOWN \$200 MILLION TO \$5.8 BILLION IN FY 1999



BROADBASED DECLINES EXPECTED IN FY 1999 U.S. SOLID WOOD EXPORTS

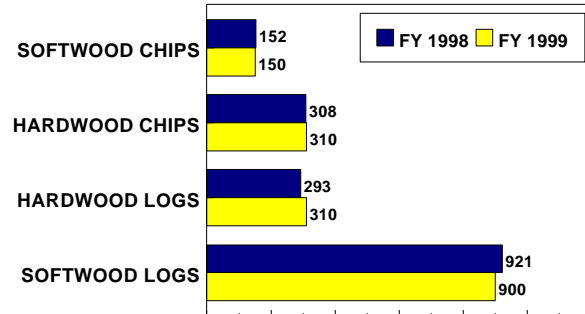


Given the sharp decline in Asian demand and the gains in U.S. consumption and the dollar, the U.S. share of the global solid wood export market fell slightly in FY 1998. The U.S. share of global solid wood products trade is expected to remain under pressure, especially from expanding softwood supplies in eastern Canada, Scandinavia, New Zealand, and Chile and expanding hardwood supplies from Europe and Brazil. U.S. domestic regulations at the Federal, State and local levels are also reducing U.S. export capacity in that public and private landholders both must reduce logging in order to comply with environmental management criteria.

Demand by Japan, our single largest market, is expected to remain depressed, although actions to stimulate borrowing initiated by the Japanese Government in November 1998

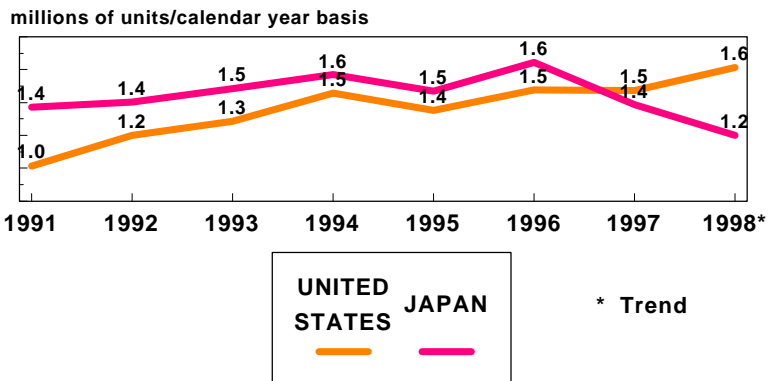
could help restore consumer confidence and housing demand in the coming year. These reforms included lowering the mortgage interest rate to two percent and relaxing eligibility requirements for low-income home buyers. Although Japan's Ministry of Construction has recently revised its Japan fiscal year 1998 housing starts forecast from 1.3 million to 1.2 million units, wood inventories have fallen to low levels and will need to be restored. With U.S. construction demand expected to slow from its currently high level of 1.6 million units to somewhat lower in 1999, U.S. softwood prices are expected to decline for the third year in a row, and this effect may rekindle Japanese demand for U.S. product.

WEAK JAPANESE HOUSING MARKET CONTINUES TO CONSTRAIN U.S. EXPORTS OF UNPROCESSED WOOD PRODUCTS TO THE WORLD

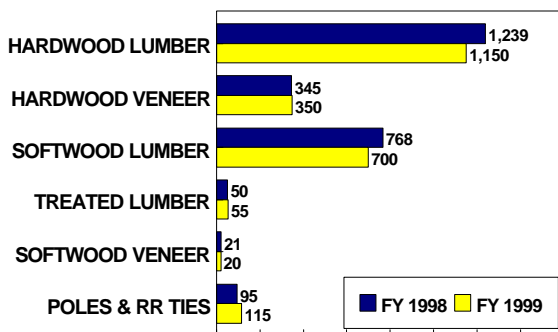


U.S. solid wood exports to the rest of Asia are expected to achieve mixed returns in FY 1999. Sales to Korea, Taiwan and most of Southeast Asia are expected to face further declines. High labor costs and the loss of its own Asian market has caused a market slowdown in Taiwan. High unemployment, lower real wages, and company

U.S. AND JAPANESE HOUSING STARTS



MIXED PERFORMANCE EXPECTED FOR U.S. EXPORTS OF PRIMARY PROCESSED WOOD PRODUCTS TO THE WORLD



indebtedness in the rest of the region have significantly reduced demand for all wood products. U.S. exports to China and Hong Kong are expected to remain at the current level of \$140 million, with high import tariffs and taxes a leading constraint to growth.

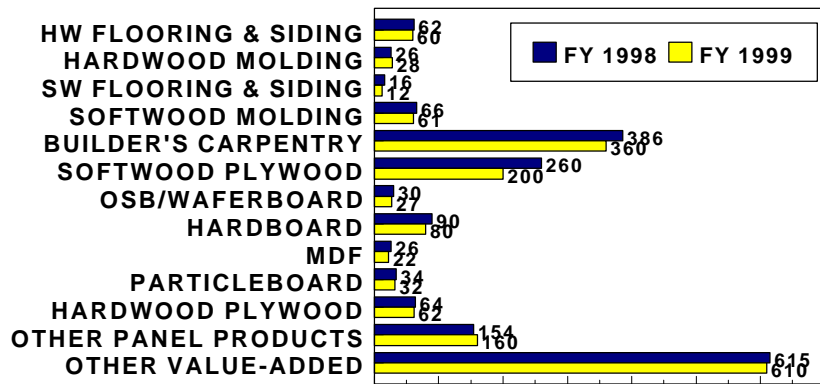
U.S. exports of *unprocessed wood products* (logs and chips) will remain relatively flat due to weak shipments to Japan.

Exports of *primary processed products* (lumber, veneer, poles and railroad ties) should see both expansion and contraction. Exports of hardwood lumber and veneer are expected to remain relatively strong in FY 1999, but will remain slightly below their peak levels of FY 1997. Sales of these two commodities to the European Union are facing growing competition from lower grades supplied by Central Europe and economic growth in the EU is expected to slow. Similarly, Canadian market growth may also slow as a result of lost markets in Asia and a cyclical readjustment of the U.S. economy.

U.S. exports of most *secondary processed wood products* (plywood, engineered wood products, and other value-added wood products) are forecast to decline as world production of fiberboard (oriented strand board, hardboard, medium-density fiberboard and particleboard) and softwood plywood increases, especially in the European Union (EU), South America, and New Zealand. Strong competition from Asian suppliers is expected to further slow U.S. plywood sales to the EU. Slow housing starts in Japan are expected to keep U.S. sales of flooring, siding, and molding to that market slow. Demand by Mexican and Caribbean processors for most secondary processed wood products, however, is expected to grow, if not break record levels in FY 1999, as their economies continue to grow and rebuild after sustaining damage from this year's heavy tropical storms.

In FY 1999, Japan is expected to remain our number one export market taking \$1.6 billion or a 28 percent market share, which is unchanged from FY 1998. Canada should remain the second largest market with total solid wood exports unchanged at \$1.5 billion. Sales to the EU should contract slightly in FY 1999, but are expected to be just \$100 million off the record \$1.4 billion attained in FY

U.S. EXPORTS OF SECONDARY PROCESSED SOLID WOOD PRODUCTS TO THE WORLD TO DECLINE OR SHOW LITTLE CHANGE



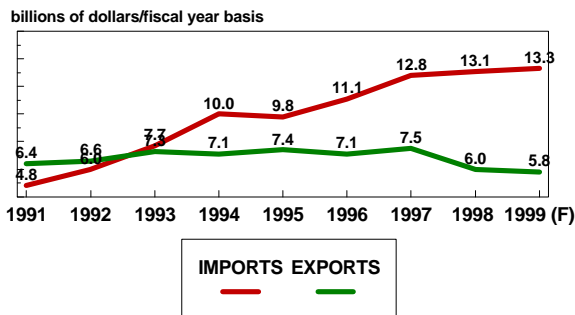
1997. The biggest growth markets will be Mexico with a 20 percent increase in sales to \$350 million, and the Middle East with exports also climbing 20 percent to \$85 million.

Import Highlights and Top Supplying Countries

In FY 1999, the United States is projected to become the world's largest importer of solid wood products, ahead of Japan. Record U.S. demand has also transformed Canada into the world's largest solid wood exporter, with 90 percent of its \$10.3 billion in exports arriving on U.S. shores.

Total solid wood products imports reached a record \$13.1 billion in FY 1998 and imports may climb slightly higher to \$13.3 billion in FY 1999. This record import demand assumes a relatively strong domestic economy and a steady American dollar. In the coming year, U.S. housing starts are expected to remain near the all-time high of 1.6 million, although construction may ease

WOOD PRODUCTS BALANCE OF TRADE: DEMAND AT HOME DRIVES RECORD IMPORTS WHILE WEAK WORLD DEMAND SLOWS U.S. EXPORTS



slightly. U.S. developers and contractors are increasingly looking to overseas markets to meet their softwood lumber needs as sales from Federally-held forests have been reduced by 84 percent over the past ten years. Although Canada by far remains our number one supplier, imports from other trade partners are steadily increasing as foreign suppliers look to the U.S.' economy to compensate for lost sales to Asia.

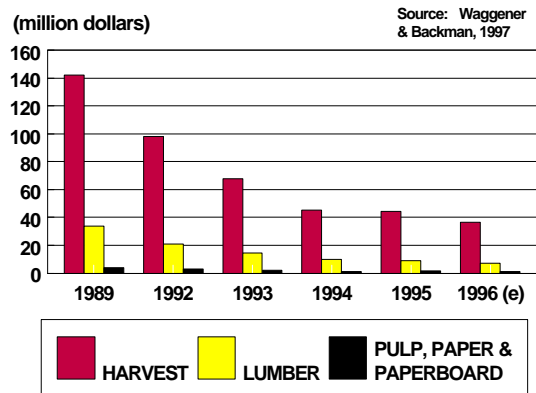
Russia: A Truly Viable Competitor?

By Roseanne Freese, Economist

Since the break up of the Soviet Union in 1991, Russian harvesting and production capacity for forest products fell sharply. Although national data are not complete, Russia's harvesting and production capacity in the Russian Far East fell by 63 percent between 1989 and 1996. Despite Russia's proximity to both major European and Asian markets, Russia's total wood, pulp and paper exports in 1997 were only \$3.2 billion and represented only 4 percent of total Russian exports. By contrast, total U.S. solid wood exports (excluding pulp and paper) were \$7.2 billion in 1997.

The Asian Crisis is also hitting Russia hard. Russian solid wood exports for the month of August 1998 were down 6 percent from those of August 1997. Russian forest products exports to Japan, Korea and China are expected to fall by 36 percent in 1998 to \$618 million. Logs and chips make up over 90

FOREST SECTOR OUTPUT IN ASIATIC RUSSIA DECLINES



percent of the product shipped by Russia to these three countries. Despite the Asian turn-down, Russia plans to implement a restructuring program for forestry that will triple forest products exports by the year 2005,

according to the Deputy Economics Minister. Without substantial improvements in Russian international and domestic finances and wood industry investment and sales laws, however, these goals are not likely to be achieved.

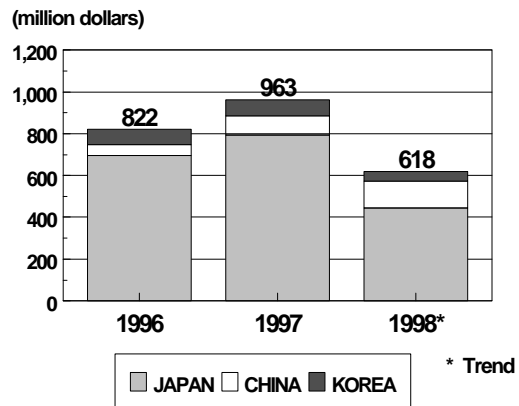
Russia is famous for its considerable quantities of timber. Russia is home to the world's largest stands of timber, comprised of 61 billion cubic meters of softwood and 19 billion cubic meters of hardwood timber. Harsh weather conditions, permafrost, and the world's longest freight distances, however, render as much as one-third of timber beyond the cost of production and undercut the myth of strong export potential.

Measuring natural resource capacity alone is not enough to determine a country's industrial and export potential. According to Russian forestry authorities, Russia has the capacity to log up to 504 million cubic meters annually. While the trees are there, no one is sure who has access to them. Since the break up of the Soviet Union in 1991, control of land resources including access, investment, stumpage, and infrastructure has shifted back and forth among the Russian Federal Government and the 78 regional (oblast) and sub-regional governments. Land for the most part, is still in the hands of the state, with no real private ownership of forest land currently in effect. Nearly all of Russia's forested area of 730 million hectares is under the jurisdiction of the State Forest Management authorities, with only 45 million hectares under the control of traditional agricultural units, sovkhozes and kolkhozes, and other collectives.

There have been several changes in Russian government management over the past year, with the latest alteration taking place in September. Most Russian government ministries underwent significant

reorganization. The Ministry of Land Policy, Construction, Housing and Utility Services, for example, is now divided into two new state committees. These two new state committees are the State Land Committee and the State Committee of Building, Architectural and Housing Policy. It is assumed that the former

IMPORTS FROM RUSSIA BY LEADING ASIAN MARKET: DEMAND EXPECTED TO PLUMMET



will concentrate on agricultural land issues and the latter on construction and housing. Also, the Ministry of Foreign Economic Relations and Trade has replaced the Ministry of Trade and will cover not just international trade but also the impact of that trade on domestic development, such as is the case with Japan's Ministry of International Trade and Investment (MITI).

Complicating matters further are conflicts of interest between old and new methods of forest resource management. Laws on land and housing ownership and development vary from city to city, oblast to oblast, and frequently include price and access controls. The transportation and cargo market is still under old rubrics of control. Russia maintains a Federal Service for the Regulation of Natural Monopolies on Transport, which regulates carriers and service fees. Russian shippers were allowed to raise service fees in 1998.

Even where forest land is privately owned,

ownership problems are immense. Striking workers at one British-owned pulp mill near the Finnish border conducted an eight-month sit-in and brought production to a complete halt. A St. Petersburg court in October of this year ordered the return of the mill to its owners, but implementation may take many more months to achieve.

Forestry investment is often under-financed. Forest management units charge a \$3-5 per cubic meter stumpage fee against logging agencies. These funds are then delivered to the Russian Federal Forest Service which in turn would in its budget channel part of the funds back to the forest management units. Since this is little other than the transfer of funds from one government agency to another, little economic efficiency is achieved. While Russia both regionally and nationally is making a commitment to increase timber removals, these efforts are often hampered by credit constraints. The region of Perm, for example, harvested 4 million cubic meters in 1997 and produced 91,000 cubic meters of plywood. The Perm Plywood Factory, however, has the capacity to produce 123,000 cum annually. An expansion project is in place, but will require 40 percent funding from the Russian Federal Government, 40 percent funding from regional governments and only 20 percent from the private sector. Logging will be carried out, not by private contractors, but prison labor.

Russia's financial problems were recently intensified when the Russian Government failed to meet its debt obligations on August 17, 1998. Banking institutions both domestically and internationally lost credibility. The Russian leadership is not only confronted with the problem of short-term investor confidence, but also must resolve long-term concerns such as choosing which banks to bail out, which banks to allow foreign capital takeover, and

which banks to let collapse altogether. While recent ruble devaluations have made exports more competitive, it has made credit much more difficult to obtain. Credit is also more expensive as there is no market for rubles like there are for the dollar, yen and Euro. Financial investment is limited, with banks allowed to source only up to 12 percent of their portfolios from foreign investors.

On the consumer side, financing to expand capacity to meet domestic demand is also unlikely over the next two to three years. Though the Russian Duma (Parliament) held hearings in November 1998 on foreign investment in residential housing, international investment, and international mortgage financing, no laws have been set. Basically, the housing and mortgage industry is still in its infancy. Many cities are now just beginning to consider the creation of a private sector mortgage market. Moscow, for example, on August 4, 1998, instituted for the first time in the modern era a mortgage system whereby 10,000 mortgages will be issued at 13 percent interest for a 10-20 year term. Future years may see offerings of 40,000 units with terms of up to 30 percent interest. A Moscow mortgage agency will also be established and be 51 percent owned by the city. The city also plans to set up an insurance company and real estate agency within its system.

In other ways, the transition from a planned to a market economy has been a difficult one. Inflation has returned, with Moscow facing 51 percent inflation from January to September 1998. Gross Domestic Product (GDP) is falling, with national GDP 10 percent lower for the month of September 1998 than it was for the same month in 1997. Unemployment rose by 5 percent to 8.4 million people. Industry and agricultural production fell by 15 percent. Income taxes are still not progressive and tax collection is poor. Debt is rising in Russia. Industrial output fell in 1998, with output falling by 11.5 percent during the first

eight months of the year. Per capita income in Russia is now just 888 rubles, down 5 rubles from 1997 levels. Russia's real GDP is expected to shrink by 5 percent in 1998.

Although Russia is actively seeking to become a member of the World Trade Organization (WTO), many obstacles to fair and stable trade remain. Tariff levels and taxes have frequently been increased or new barriers introduced since the 1991 break-up of the Soviet Union. The Government of Russia announced in the fall of 1998 that it intends to add a temporary 3-percent import surcharge on all imports, effective August 15 - December 31, 1999, in order to raise one billion rubles (\$167 million) of additional revenue to support International Monetary Fund (IMF) commitments. The Russian Government also recently announced that it will also introduce export taxes on unprocessed solid wood products in order to promote the export of value-added wood products. No time of implementation or expected amount of the export-tax have been announced.

Softwood Competition: Chile

By Liliana Bachelder, Agricultural Marketing Specialist

Introduction

Chile is an important competitor in the global wood products trade. In 1997, Chile's forest product exports totaled \$1.83 billion, according to Chile's Corporacion Nacional Forestal (CONAF). Wood products and pulp exports represent over nine percent of total export earnings for Chile. Chile exports primarily pulp, softwood lumber, chips, softwood mouldings, and softwood logs to markets in Japan, the United States, Korea, the EU, and Taiwan. In light of recent free trade arrangements with Mercosur, Canada, and Mexico, Chile will be a growing competitor in international softwood markets.

Chile's Resources

Currently, according to CONAF, Chile has 13.5 million hectares of native forests and a forestry plantation base of 2.11 million hectares, concentrated in the south and south-central regions of Chile. In 1997, planted area expanded by almost 80,000 hectares. Coniferous species account for 83 percent of plantings, of which 98 percent is radiata pine, with some Douglas-fir and other species. Radiata pine has a rapid growth rate in Chile, requiring only 20-24 years until harvest. Total Radiata planting reached over 1.4 million hectares in 1997. The next most important species is eucalyptus. Because of eucalyptus' short maturation (10 to 15 years), higher end product prices, and Asian consumer preference, eucalyptus plantings have now outpaced radiata plantings. Chile's eucalyptus plantation base has sharply grown from 46,000 hectares in 1993, to over 317,000 hectares by 1997. Eucalyptus plantings are anticipated to keep expanding, but probably at a slower rate. Chile's land prices are expensive, which will retard planting expansion as well.

Of Chile's 13.5 million hectares of native forests, an estimated 7.1 million hectares are considered to be productive. The utilization of the native forests consists primarily of selective cuttings, mainly wood for chip production. However, Chile is now facing opposition in its forestry sector from environmental groups, which are opposed to using wood from these native forests for chips, especially as 60 percent of wood chip production is exported for overseas markets. Moreover, the Chilean Congress has been unable to pass legislation for native forestry management. The proposed "Law for the Recovery and Promotion of the Native Forest" has come up before the Congress annually since 1992. The combination of political pressures from environmentalists with the lack of a clear policy for native forests is impacting productivity and plantings.

Subsidies

The Chilean government has been subsidizing plantations for well over two decades. Under the Chilean forestry subsidy program Decreto Ley 701 (DL-701), Chilean forestry subsidies totaled \$174.6 million from 1974 through 1997. These subsidies permitted the reforestation of areas otherwise unsuitable for forestry production and enabled Chile to establish extensive pine and eucalyptus plantations. Dramatic expansion of plantations occurred--in 1973 only 290,000 hectares were under plantation; Chile now has expanded to a plantation base of over 2.1 million hectares. DL-701 expired in 1996, but in 1998 it was extended and is again in force with special provisions for small operations and lands for reforestation. The extension of DL-701 provides for subsidies to be paid for plantings costs: up to 90 percent for the first 15 hectares and 75

percent for the remainder, in the case of small growers. A subsidy of up to 15 percent of planting costs will be available for larger plantations for reforestation.

Chilean Production

Chile has modernized its forest products industry. Over the last decade, investments in this sector have totaled over \$3 billion annually, and could reach as high as \$5 billion annually by 2005. The country now has four particleboard plants, four fiberboard plants, seven plywood plants and four veneer mills. The effects of this heavy investments can be seen in the exports of value-added products. For example, medium density fiberboard and fiberboard exports grew from \$54.8 million in 1995 to \$78.2 million in 1997, with further growth anticipated in 1998. Chile's strong domestic economy and liberal investment regulations have attracted foreign investments to the sector, most notably from Japanese investors. The U.S. Department of Commerce reports that during the first quarter of 1998, foreign materialized investment in Chile's forestry sector was US \$7.7 million, representing a 2.6 percent increase over first quarter 1997. A growing number of U.S. companies are establishing joint ventures in Chile, particularly in processing value-added products.

One notable exception in Chile's push towards modern large plants is the sawmilling industry, which is still predominately operated by small, mobile enterprises resulting in lower productivity and low conversion yields, with very low chip recovery rates. Chile has over 1,500 sawmills, but lumber exports are concentrated from the larger plants, with only 40 to 50 firms involved in exporting. As more investment dollars are funneled into sawmills, productivity should increase and Chile should become more competitive in lumber export

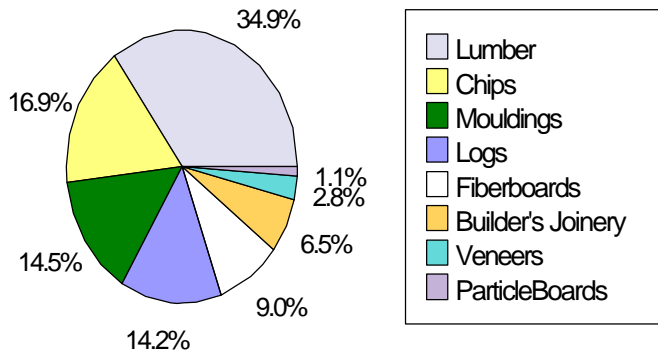
markets.

Chilean Export Products Overview

For export markets, Chile's most important products are softwood lumber, chips, softwood mouldings, and softwood logs.

Softwood Lumber and Mouldings

1997 Chilean Wood Product Exports



Source: ProChile

Chile's lumber production set another record breaking year in 1997. Production reached 4.27 million cubic meters, with over 90 percent being radiata pine. Strong demand came both from the domestic construction industry and export markets in 1997. However, for 1998, production is anticipated to fall to 4.2 million cubic meters as export demand has slowed down and so has the domestic construction business. The outlook for 1999 is for production to drop to 3.9 million cubic meters. In the medium term, as the supply of knot-free Chilean lumber increases, exports of softwood lumber could rise at an increasing rate. Prices for knot-free Chilean lumber are 2 to 3 times higher than regular softwood lumber.

Chile has been aggressively developing its production capabilities for value-added products such as mouldings, planks, doors, window frames, cabinets, and furniture. Moulding exports have exploded from \$55.8 million in 1995, to \$124.6 million in 1997. Several industry analysts project, in the next 5 years, that Chile's value-added lumber production will exceed over 1.5 billion board feet, and represent over 50 percent of Chile's wood products exports. The U.S. is the number one market for these products. The U.S. imported \$122.0 million in softwood mouldings and builder's carpentry in 1997, and is projected to import \$140 million of these products in 1998.

Chips

Chile is the leading South American exporter of wood chips, and is third in global exports behind Australia and the United States. Chile produced over 6 million metric tons of wood chips in 1997 with over 2.8 million metric tons exported (Source: Chile's

Forestry Institute, INFOR). Chipping facilities are concentrated near Concepcion, with wide ranges in their capacity and productivity. Chile has exported very little radiata pine woodchips in recent years, with eucalyptus and native species growing in importance in exports. In 1987, all Chilean wood chip exports were radiata pine; but by 1997, on a value basis, over 93 percent of chip exports were eucalyptus and hardwood chips (primarily several species of Nothofagus, or Southern beech). Radiata chips are now used primarily as inputs into the domestic pulp industry.

Softwood Logs

Chile leads South America in log exports. Softwood log production reached 11.4 million

cubic meters (m3) in 1997 but the impact of the Asian financial crisis is expected to result in a significant reduction in both 1998 and 1999. The main industrial applications for radiata pine logs are: sawlogs for lumber (which in 1997 consumed 49 percent of production), pulplogs (on the average consumes 32-34 percent of production) and exports (which on the average consumes 7-8 percent of production). As Chile's eucalyptus plantings mature, more eucalyptus is expected to be used in the pulp industry, with radiata processed into sawnwood. Radiata sawlogs are Chile's main log export product, and typically 80 to 90 percent of exports are shipped to South Korea and Japan.

Chilean Export Markets Overview

Because of the small size of the domestic market, with a population of only 14 million, Chile is an important exporter of wood products relative to production levels. Exports sales for wood products were just over \$1.8 billion dollars in 1997 (Source: CONAF). During 1998, Chile suffered from continued weakness in demand for woodpulp especially in Asia, which limited export sales growth. No growth in demand for woodpulp in global market is anticipated in the short term, since Japan's economy and some South East Asian countries are still expected to remain in recessions in 1999. Japan continues to be Chile's largest export market, accounting for almost 20 percent of total 1997 exports, followed by the United States with a little over 17 percent, and South Korea with 11 percent.

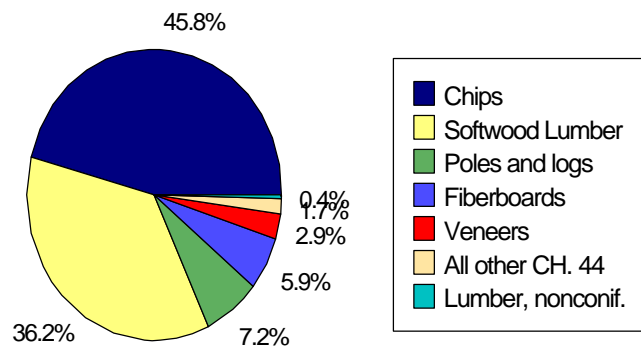
Japan

Japan is Chile's most important trading partner in forestry products. Japan, however, imports mostly chips, lumber, and logs rather than higher value products, such as mouldings or panel products. Chilean value added products have not been able to establish a presence in this market. Chile is still a small player in this market--total market share in 1997 was only 2.6 percent of a \$15 billion dollar market (Source: Japan Tariff Association, selected HTS category 44 products).

Japan purchases almost all of Chile's wood chip exports: in 1997, Japan imported 93 percent, or \$137.2 million, of Chile's total chip exports of \$146.9 million (Source: ProChile). Chips are used as inputs into Japan's paper and pulp industries. Japanese customers prefer eucalyptus because of superior pulping characteristics and higher yields. Chilean chip exports to Japan are not anticipated to fall due to the Asian economic problems because of established long-term purchasing agreements.

Chile's number one market for lumber exports is also Japan which, on the average, imports over 30 percent of total Chilean lumber exports. Japan imported \$139 million in Chilean lumber in 1997 (Source: Japan Tariff Association). However, Japan imports mostly lower grades, such as green thin lumber for

1997 Chilean Wood Products Exports to Japan



Source: U. N. Statistics Division

packaging. Chile's 1997 lumber market share in Japan was only 3 percent. Year to date exports of lumber to Japan are sharply down; Chile's exports during January through October 1998 to Japan were down over 44 percent, having exported only \$68 million against \$123 million for the same period in 1997 (Source: Japan Tariff Association).

Japan is Chile's second most important market for logs, log exports to Japan in 1997 reached over \$21 million (Source: ProChile). In 1997, Chile's log market share in Japan was only 0.43 percent. However, this market has also contracted, with Chilean exports down by over 37 percent during January through October 1998 compared to the same period in 1997 (Source: Japan Tariff Association).

The United States

The U.S. is Chile's number one trade partner in total trade exchanged, and the U.S. enjoys a substantial trade surplus with Chile totaling \$1.6 billion in 1997. However in forest products, the U.S. imported \$252.5 million in wood products in 1997, while exporting only \$12.1 million to Chile. Some U.S. sawmills and processors are concerned about the rapid growth in imports from Chile, however, a number of U.S. companies have a presence in Chile through joint ventures.

The U.S. market is very important to Chile because, in this market, Chile has been able to sell its value added products. Chile exports primarily softwood mouldings, softwood lumber, and builder's carpentry to the U.S.; these three categories account for over 80 percent of Chilean wood products exports to the U.S. by value. After Mexico, Chile is the number two exporter of softwood mouldings to the U.S. Chilean softwood moulding imports have surged from \$6.6 million in 1992 to \$99.1 million in 1997. U.S. imports of Chilean softwood mouldings should set another record in 1998 as imports already reached \$87.8 million through September.

While Canada supplies over 90 percent of the softwood lumber imported into the U.S. each year, Chilean imports of lumber have grown rapidly from 85,731 cubic meters (m³) in 1992, to 260,147 m³ in 1997. U.S. imports of Chilean lumber in 1998 through September are 222,834 m³. Imported Chilean lumber is mostly shop grade lumber bound for remanufacturing plants in the Pacific Northwest.

Chilean imports have been strong despite new regulations on the importation of wood products into the U.S. market. On June 5, 1997, the U.S. District Court for the Northern District of California enjoined APHIS from issuing any new import permits for unfinished temperate logs, temperate lumber, and solid wood packing materials (pallets, dunnage, etc.) imported as cargo. The next hearing on the injunction is not expected to occur before January 8, 1999. The injunction has not curtailed wood product imports from Chile; imports of Chilean wood products were \$252 million in 1997, compared to \$173 million in 1996, a 46 percent increase in trade.

South Korea

The current Asian financial crisis has affected Chilean wood products exporters. South Korea was Chile's number three export market for forest products in 1997. In 1998, Chilean exports to South Korea are down over 76 percent through October, compared to the same period in 1997: \$46 million dollars in exports compared to 1997's \$198 million (Source: Korea Customs). South Korea was the only market of consequence for Chilean logs. In 1997, nearly 70 percent of all Chilean log exports went to South Korea, but this market has nearly completely collapsed. New Zealand also exports radiata pine to South Korea but enjoys a transportation cost advantage over Chile to Asian markets.

Conclusions

While Chile's forest products sector is currently suffering the effects of the Asian economic and financial crisis and a weak pulp market, in the long term Chile is likely to become increasingly competitive in international markets because of several factors. First, Chile has gained market access advantages in certain countries by participating in free trade agreements with MERCOSUR, Canada, and Mexico (although they did not participate in the APEC forest products trade liberalization initiative). Moreover, Chile is now able to purchase high-technology Canadian machinery duty-free which will enable Chile to further modernize the wood processing sector. Also, Chile is shifting the focus of its forest products industry towards higher value products and towards clear lumber. This new orientation may help the forest products industry overcome lower earnings due to weakness in Chile's pulp and log export markets. Finally, Chile's strong

economic and fiscal policies will continue to attract foreign direct investment, and these same policies have also directed private pension fund investments into capital markets and infrastructure projects. These continued investments will likely help Chile overcome weaknesses in production, and transportation costs, increasing its competitiveness in overseas markets.