Wood Resource Quarterly - 3Q/2011

Wood Resource Quarterly

Wood Resource Quarterly
Global Wood Fiber Market Update - 3rd Quarter 2011

October 25, 2011
Seattle, USA

Dear subscriber,

Lumber markets weakened in many countries around the world in the 3Q, resulting in lower demand for sawlogs. As a consequence, the Global Conifer Sawlog Price Index (GSPI) fell for the first time in almost three years.

North America's exports of logs and lumber to China will reach new highs this year. Exports for 2011 are predicted to reach an estimated value of 2.6 billion dollars, almost a doubling from last year (see special report). Given the increased importance of China's imports of forest products, we decided to include Chinese import statistics for lumber, logs and wood chips in the Wood Resource Quarterly, which we believe adds further value to your WRQ subscription.

Please do not hesitate to contact us if you have other markets you would like us to cover.

Global wood raw-material indices for the 3Q/2011 are as follows:

		Change Q/Q	Y/Y
Global Sawlog Price Index (GSPI)	US$90.18/m3	-1.8 %	+12.1 %
Softwood Wood Fiber Price Index (SFPI)	US$108.90/odmt	-0.5 %	+9.1 %
Hardwood Wood Fiber Price Index (HFPI)	US$117.91/odmt	+1.3 %	+12.4 %

Happy reading.

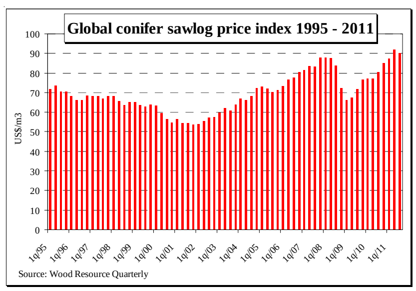
Sincerely,

Håkan Ekström, *Editor-in-Chief*

The Global Forest Industry this Quarter

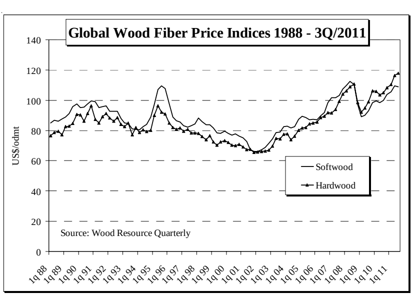
Global timber markets

With weaker demand for lumber around the world, sawlog prices fell in a majority of the 21 markets tracked by the WRQ. The **Global Conifer Sawlog Price Index (GSPI)** declined in the 3Q for the first time since the 1Q/09 to $90.18/m3. With a few exceptions, prices fell in both local currencies and in US dollar terms. The only region that saw any substantial price increase in the 3Q was British Columbia, where prices were up 5-7 percent from the 2Q. This region has benefited from higher lumber exports and production has gone up during 2011.



Global pulpwood price

A strengthening of the US dollar against many currencies resulted in lower wood fiber costs for the pulp industry in the 3Q. The **Softwood Wood Fiber Price Index (SFPI)** fell by less than one percent to $108.90/odmt, which was the first decline since 2Q/10. In addition to the exchange rate adjustments, prices also fell in the local currencies in Russia, France and Spain.



The **Hardwood Wood Fiber Price Index (HFPI)** rose for the fifth quarter in a row, reaching $117.91/odmt, an increase of 14 percent since early last year. The biggest increases from the 2Q/11 occurred in Chile, Japan, Indonesia and Brazil. The premium of $9.01/odmt for HFPI over the SFPI has never been higher than in the 3Q/11.

Global pulp markets

The global demand for market pulp has been weakening the past four months, particularly that of hardwood pulp. Pulpwatch reports that global shipment of BHKP pulp fell from 1.76 million tons in June to 1.41 million tons in July. Although shipments picked up slightly in August, the outlook for the next six months is for lower demand and reduced pulp production.

The NBSK pulp price has fallen from its record high in June earlier this year. In just four months, the price has come down almost $100/ton to $928/ton as of mid-October.

Global lumber markets

Although there is limited production data available for the full quarter, there are early reports indicating lower production levels in the US, Eastern Canada, the Nordic countries, Russia and a number of countries in Europe. In addition, a number of the largest lumber-consuming countries in the world imported less lumber in July and August than they did in the previous months. Some of these countries included the US, the UK and Germany. Even the fast increase in imports to China seen earlier in the year slowed down during the summer months.

In **British Columbia**, sawmills have been running at an 83 percent utilization rate thanks to continued strong exports to Asia. Production during the first seven months reached 7.2 million m3, or 6.5 percent higher than the same period last year.

Softwood lumber imports to Japan are up 11 percent so far this year and total imports for the year may reach close to seven million m3, the highest import volumes since 2006

Global biomass markets

Prices for woody biomass, whether it was sawmill byproducts, forest residues or urban wood waste, were lower in 2011 than in 2009 in most regions throughout the US.

The expansion of pellet capacity in Europe over the past five years has been much faster than demand.

Pellet prices in Sweden fell for the first time in almost three years.In Germany and Austria pellet prices only changed a few Euros.The price discrepancy between the three largest markets in Europe is currently the widest since 2007.

World Pulpwood Price Review

Delivered Prices

Third Quarter 2011

	Product		Domestic Price				Price in US dollars			
			Per m3		Per odmt		Per m3		Per odmt	
			Avg	Range	Avg	Range	Avg	Range	Avg	Range
US South	Rwd, conifer		37	33-43	72	59-84	37	33-43	72	59-84
	Rwd, non-con		35	34-43	69	58-83	35	34-43	69	58-83
	Chips, conifer									
	Chips, non-con									
US Northwest	Rwd, conifer	(a)								
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Canada, East	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Canada, West	Rwd, conifer	(a)								
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Norway	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Sweden	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Finland	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
France	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									
Germany	Rwd, conifer									
	Rwd, non-con									
	Chips, conifer									
	Chips, non-con									

World Pulpwood Price Review

Delivered Prices

Third Quarter 2011

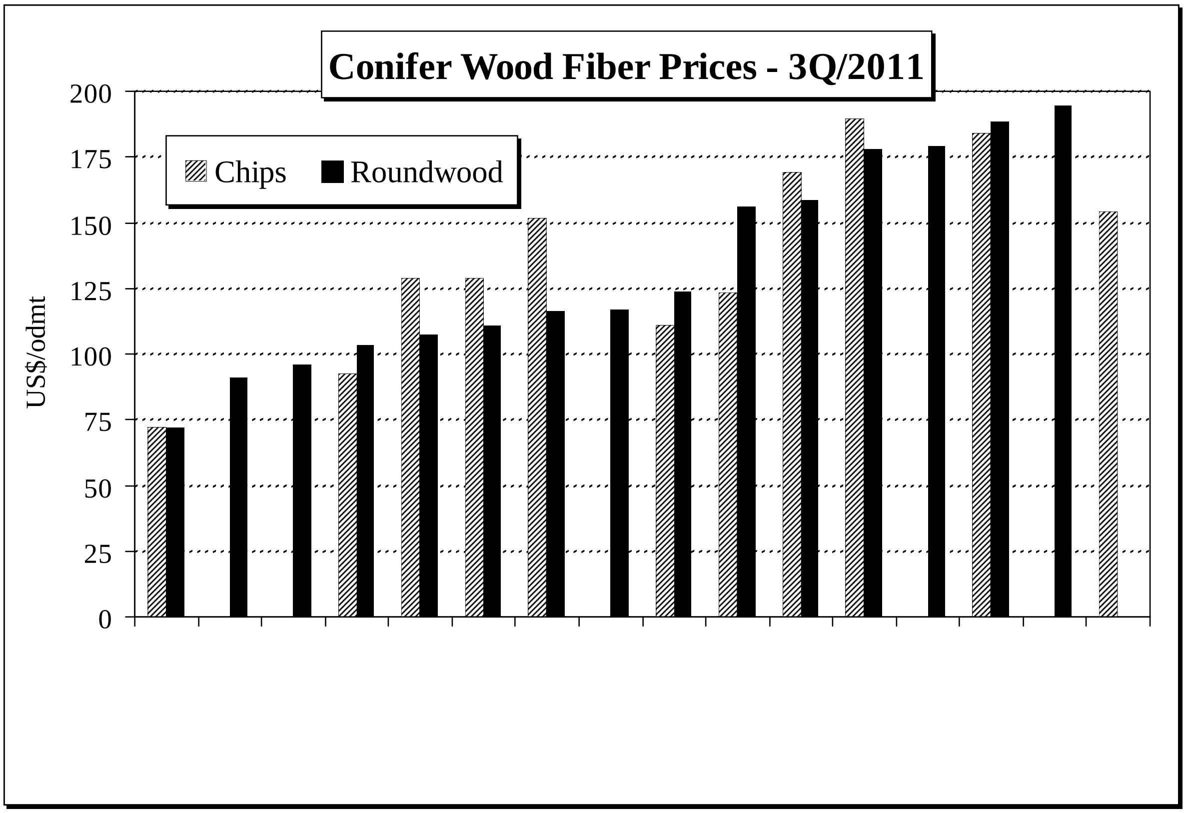
Region	Product	Domestic Price				Price in US dollars			
		Per m3		Per odmt		Per m3		Per odmt	
		Avg	Range	Avg	Range	Avg	Range	Avg	Range
Spain	Rwd, conifer	36	27-45	83	61-104	51	38-64	117	87-147
	Rwd, non-con								
	Chips, conifer								
	Chips, non-con								
Russia, NW	Rwd, conifer	1							
	Rwd, non-con								
Brazil	Rwd, conifer (f)								
	Rwd, non-con (f)								
	Chips, conifer								
	Chips, non-con								
Chile	Rwd, conifer	1							
	Rwd, non-con	2							
	Chips, conifer								
	Chips, non-con								
New Zealand	Rwd, conifer								
	Rwd, non-con								
	Chips, conifer								
	Chips, non-con								
Australia	Rwd, conifer								
	Rwd, non-con								
	Chips, conifer								
	Chips, non-con								
Japan	Chips (dom), con	5							
	Chips (dom), non-c	1							
	Chips (imp), con (d)	7							
	Chips (imp), non-c (d)	1							
Indonesia	Rwd, conifer								
	Rwd, non-con (e)								
	Chips, conifer								
	Chips, non-con								

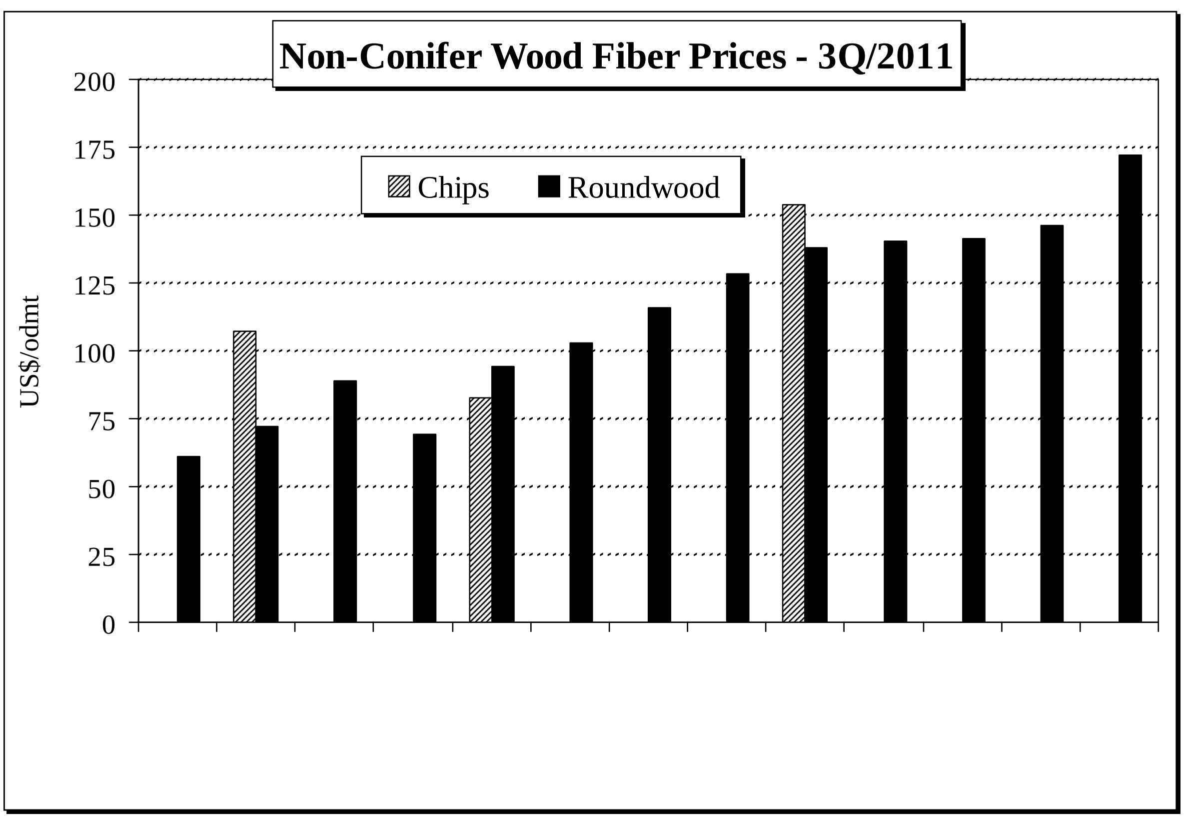
Notes.

Prices in above table represent wood fiber traded in the open market and do not include internal transfer pricing.

(a) Primarily utility grade roundwood.
(b) Insufficient volume to obtain open market prices.
(c) Transfer priced on local market
(d) CIF port in Japan.
(e) Domestic prices in 1000 Rupiah
(f) Open market volume for Eucalyptus est 15-20%, pine 35-45%

Global Delivered Pulpwood Prices



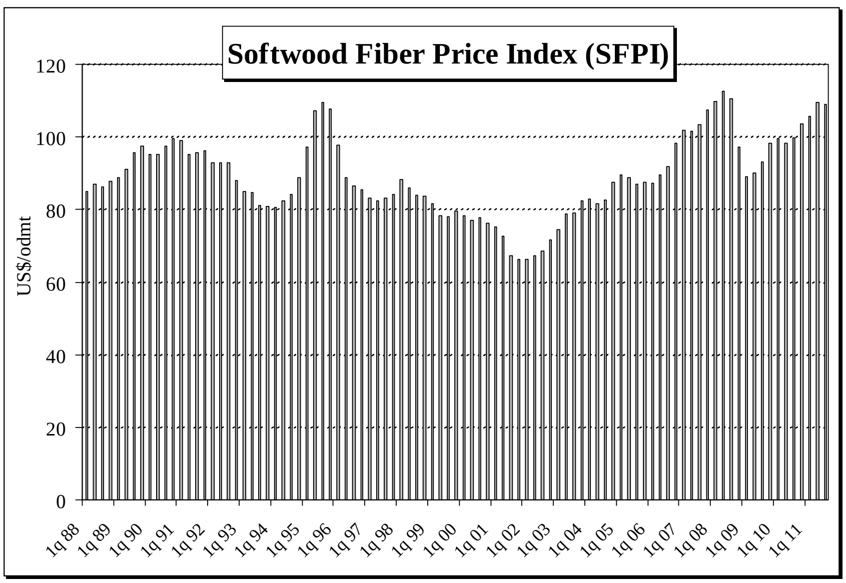


Global Wood Fiber Price Indices

A strengthening of the US dollar against many currencies resulted in lower wood fiber costs for the pulp industry in the 3Q. The **Softwood Wood Fiber Price Index (SFPI)** fell by less than one percent to $108.90/odmt, which was the first decline since 2Q/10. In addition to the exchange rate adjustments, prices also fell in the local currencies in Russia, France and Spain.

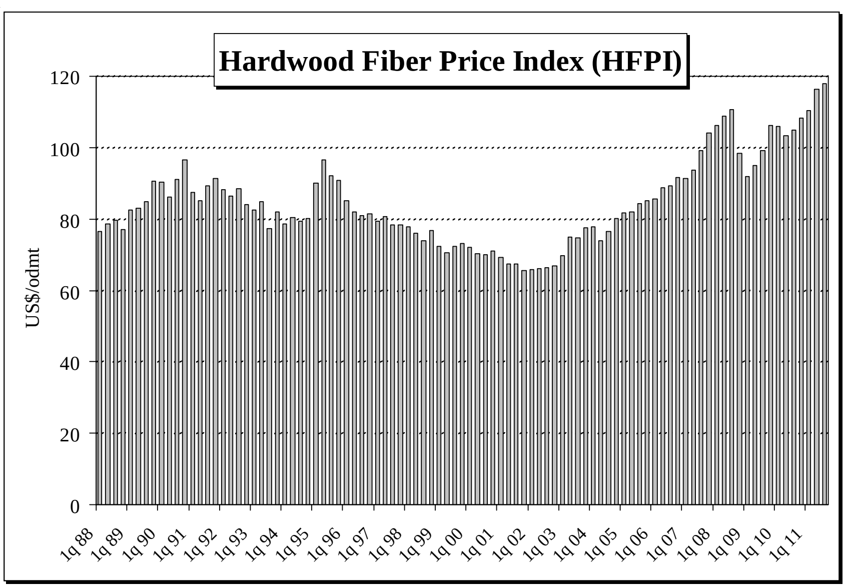
The **Hardwood Wood Fiber Price Index (HFPI)** rose for the fifth quarter in a row, reaching US$117.91/odmt, an increase of 14 percent since early last year. The biggest increases from the 2Q/11 occurred in Chile, Japan, Indonesia and Brazil. The premium of $9.01/odmt for HFPI over the SFPI has never been higher than in the 3Q/11.

Note. *The Global Average Wood Fiber Price Index is a weighted average of delivered wood fiber prices for the pulp industry in all regions tracked by the publication* ***Wood Resource Quarterly.*** *These regions together account for 85-90% of the world's wood-based pulp production capacity. The price is based on current quarter average prices, and country/regional wood fiber consumption data. The global average for softwood and hardwood is calculated in nominal US$ per oven-dried metric ton of wood fiber.*



Softwood Fiber Price Index (SFPI)

1q/2009	89.00
2q	90.01
3q	93.12
4q	98.34
1q/2010	99.55
2q	98.29
3q	99.80
4q	103.66
1q/2011	105.60
2q	109.52
3q	108.90



Hardwood Fiber Price Index (HFPI)

1q/2009	91.99
2q	94.92
3q	99.15
4q	106.19
1q/2010	105.90
2q	103.37
3q	104.88
4q	108.28
1q/2011	110.33
2q	116.44
3q	117.91

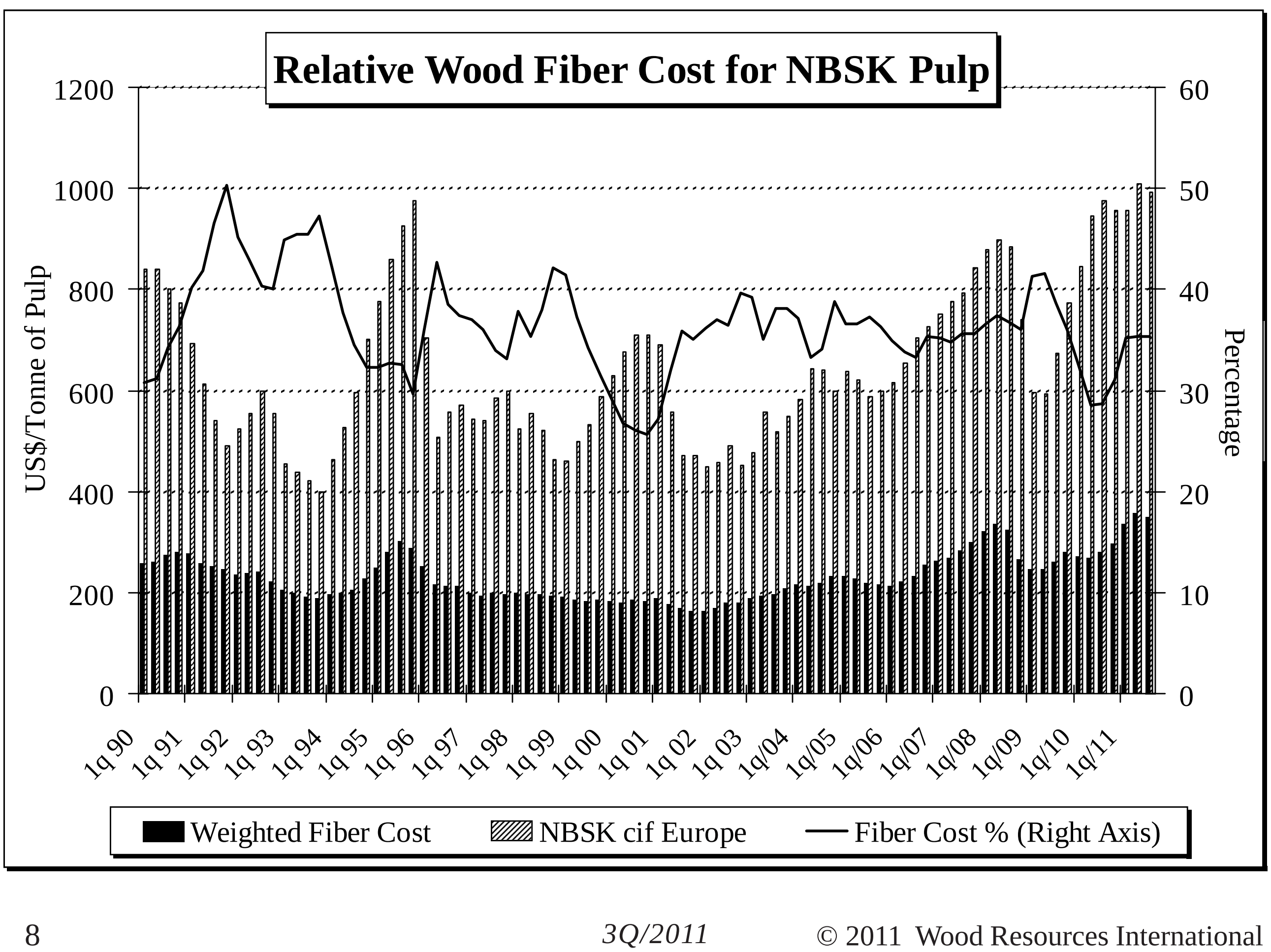
Relative Fiber Costs for Major Pulp Grades

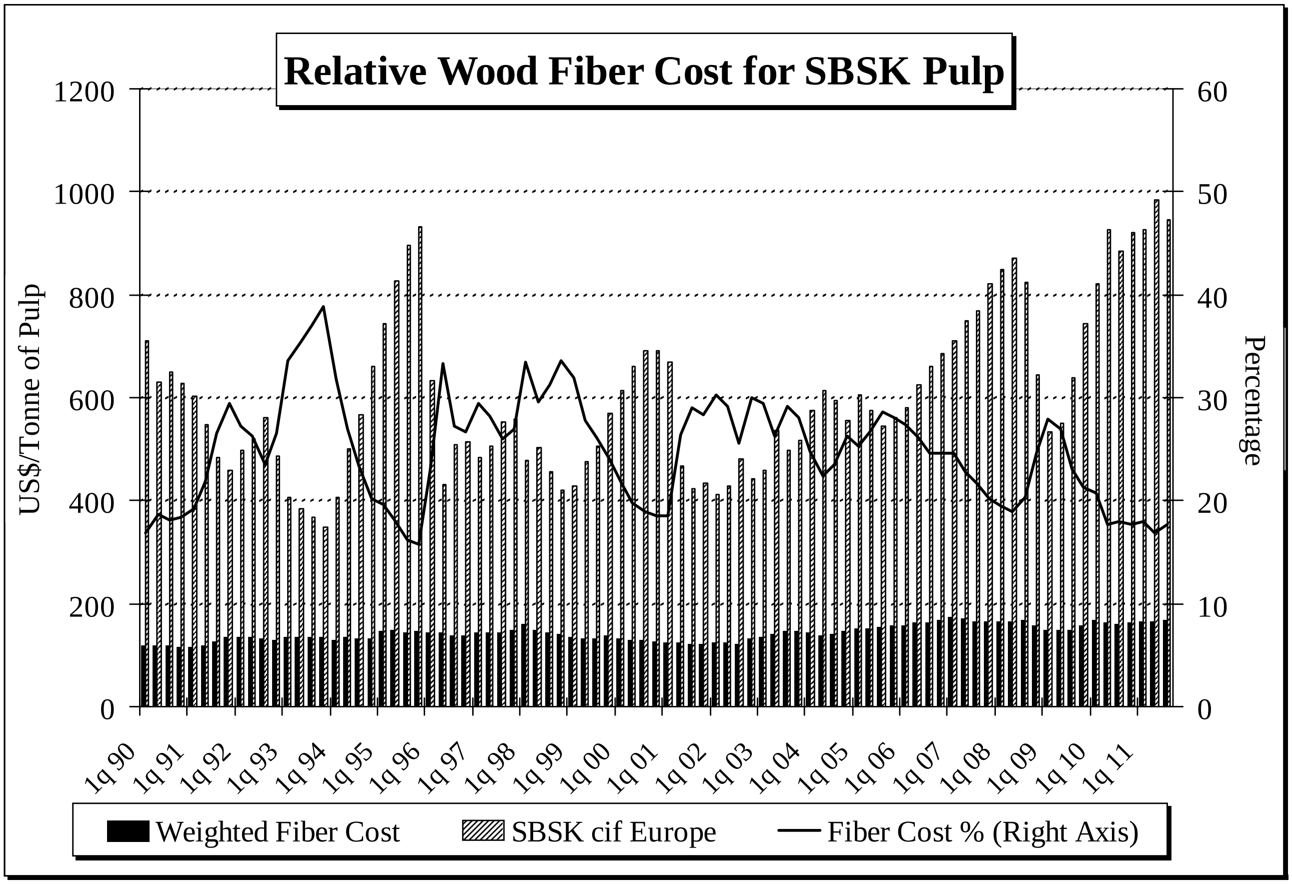
Prices fell for most grades of market pulp in the 3Q, less for NBSK than for SBSK and EuBKP. Wood fiber costs trended upward in a number of markets covered by the WRQ. However, there were exceptions, particularly in the NBSK-producing regions.

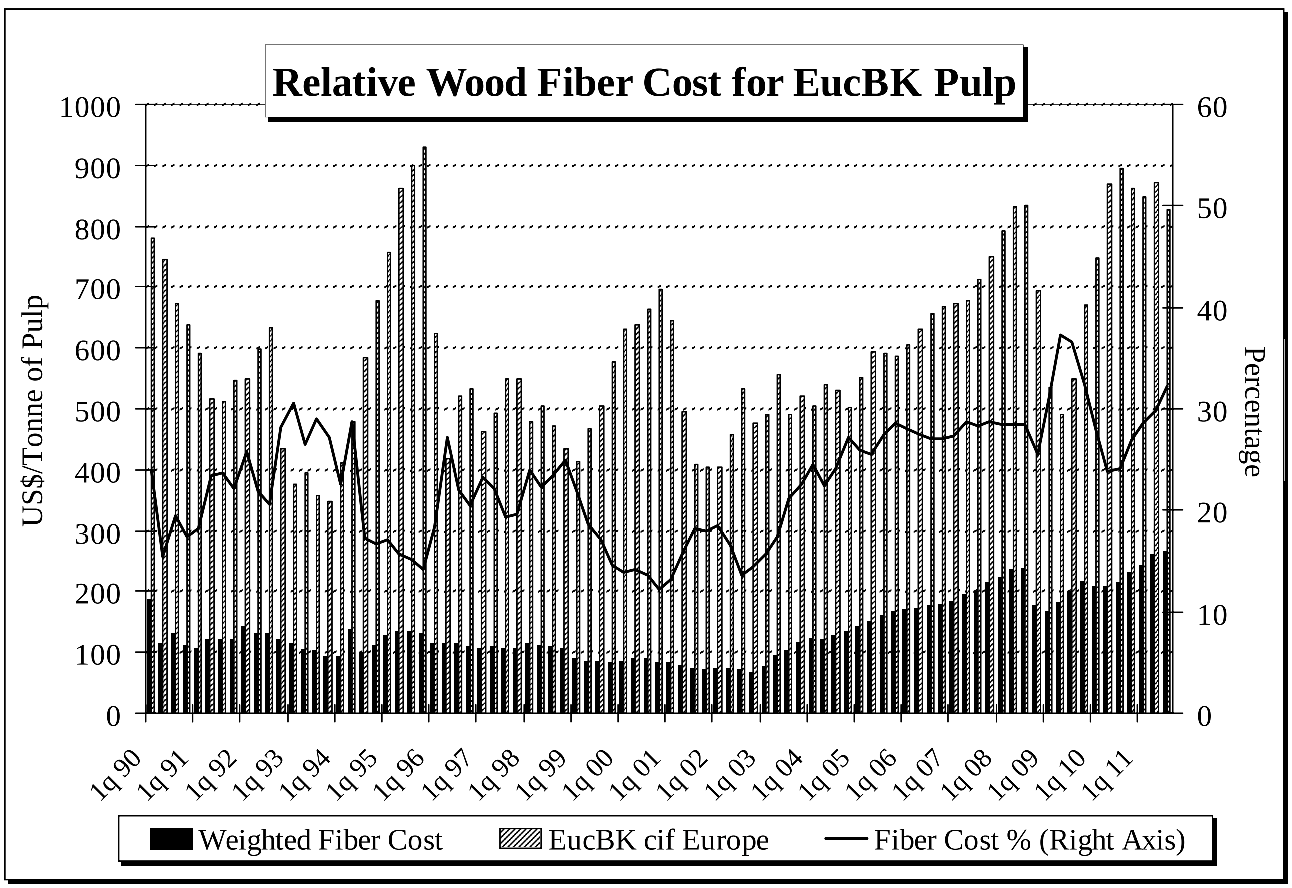
The NBSK price fell to an average of $992/ton in the 3Q, so with wood costs declining by the same percentage, the wood cost share of the total pulp price remained basically unchanged at 35.3 percent from the previous quarter. The wood cost percentage for Southern bleached softwood kraft pulp (**SBSK**) rose from 16.8 percent in the 2Q to 17.7 percent in the 3Q/11. This rise was both because of higher wood fiber costs and lower market price for SBSK.

The relative wood cost for **Eucalyptus pulp (EuBKP)** has gone up steadily for five consecutive quarters to reach 32.2 percent in the 3Q. The major reason for the latest increase was the reduced price for Eucalyptus market pulp, which was down over five percent quarter-over-quarter.

Notes. *Wood fiber costs remain the single largest cost component in the manufacture of wood pulp. The following graphs depict the relationship between market pulp prices (in US$ cif Europe), and average wood fiber costs. For each grade, an average wood fiber cost was calculated using an average kraft pulp yield factor, current quarterly wood fiber prices, and the average volume of wood consumed by each WRQ region manufacturing that particular grade of pulp (e.g. SBSK is produced by Spain, the U.S. South, Brazil, Chile, New Zealand, and Australia). The resultant average wood fiber price is charted as a percentage of the average market pulp price as reported by FOEX Indexes and the publication Pulpwatch (Hawkins Wright).*




Relative Wood Fiber Cost for SBSK Pulp
US$/Tonne of Pulp
Percentage
1200
1000
800
600
400
200
0
60
50
40
30
20
10
0
1q 90
1q 91
1q 92
1q 93
1q 94
1q 95
1q 96
1q 97
1q 98
1q 99
1q 00
1q 01
1q 02
1q 03
1q 04
1q 05
1q 06
1q 07
1q 08
1q 09
1q 10
1q 11
Weighted Fiber Cost
SBSK cif Europe
Fiber Cost % (Right Axis)


Relative Wood Fiber Cost for EucBK Pulp
US$/Tonne of Pulp
Percentage
1000
900
800
700
600
500
400
300
200
100
0
60
50
40
30
20
10
0
1q 90
1q 91
1q 92
1q 93
1q 94
1q 95
1q 96
1q 97
1q 98
1q 99
1q 00
1q 01
1q 02
1q 03
1q 04
1q 05
1q 06
1q 07
1q 08
1q 09
1q 10
1q 11
Weighted Fiber Cost
EucBK cif Europe
Fiber Cost % (Right Axis)

Special Report: North American log and lumber exports to China

Exports of logs and lumber from the US and Canada to China are on pace to reach a record 2.6 billion dollars in 2011

Shipments of softwood lumber and logs from the US and Canada to China will reach a new record high in 2011. In 2010, the two countries exported 1.3 billion US dollars worth of softwood products; if the pace seen in the first seven months of 2011 continues, the two countries' exports will more than double from last year, reaching a record 2.6 billion US dollars.

Despite the disappointing developments in the US housing sector the past year, lumber production in both the US and Canada has been higher in 2011 than in 2010. Many sawmills in the Western US and Canada have benefitted from the dramatic increase in demand from Chinese lumber consumers and some sawmills are exporting up to 30 to 40 percent of their production to the fast developing market in Asia.

Softwood lumber from the province of British Columbia in Canada has seen the biggest increase in shipments the past year. Much of this lumber comes from sawmills in the Interior of the province, which are utilizing the massive supply of timber that has been killed by the pine beetle over the past 15 years. The BC government estimates that as much as 700 million m3 of wood have been infected and are dying. However, much of this volume is outside the reach of the forest industry and will never be logged.

Average value of Canadian lumber destined for China higher than lumber destined for the US

The value of lumber shipments from Canada has increased from just 55 million dollars in 2005 to an estimated 1.2 billion dollars this year. By volume, the growth has risen from 250,000 m3 six years ago to slightly over seven million m3 this year. Both the BC Government and the forest industry are optimistic that China will continue to be a major consumer of Canadian lumber and that opportunities for shipments will continue to increase in the coming years.

It interesting that since last year, the average value for lumber exported to China has increased while the value of US destined lumber has declined. In the second quarter last year there was hardly any difference in the average value for lumber going to China as compared to the US, while in the second quarter this year, lumber for China was $30/m3 higher than for lumber for the US market.

US will ship logs to China worth one billion dollars in 2011

While Canada has drastically raised lumber shipments to China in recent years, the US has instead substantially expanded exportation of logs to Chinese lumber manufacturers. This year, US west coast log exporters are projected to ship logs valued at close to one billion dollars, which is up from only 42 million dollars just four years ago. By volume, it is estimated that log shipments will reach six million m3 in 2011, up from only 260,000 m3 in 2007 year.

US lumber shipments to China have also gone up dramatically percentagewise the past few years, but they started at very low levels. For example, as late as in 2008, only 70,000 m3 of lumber was exported to China. This year it is expected that almost one million m3 will leave the US west coast for China. As long as the US domestic market continues to be weak, more sawmills are exploring the opportunities to send their products to the rapidly expanding Chinese market.

North American wood products exporters are gaining market shares in China

The US and Canada have not only increased shipment volumes of logs and lumber to China the past five years; the countries have also expanded their importance in the Chinese wood market. In 2005, only four percent of all softwood logs and lumber imported to China originated from North America. Last year, this share had gone up to 18 percent. Many North American log and lumber suppliers have the opportunity to expand their export sales in the coming years and it is likely that their presence in the Chinese market will grow.

Pulp Market Update 3Q/11

Reduced demand for market pulp in the 3Q

The global demand for market pulp has been weakening the past four months, particularly that of hardwood pulp. Pulpwatch reports that global shipment of BHKP pulp fell from 1.76 million tons in June to 1.41 million tons in July. Although shipments picked up slightly in August, the outlook for the next six months is for lower demand and reduced pulp production.

Pulp mills in Latin America and New Zealand saw the biggest decline in shipments, while North American and European shipments stayed flat during the summer.

During the first seven months of this year, global production of market pulp increased six percent compared to the same period in 2010. However, it is likely that pulp output for the remainder of the year will be less than last year, so that total production for 2011 will be just slightly higher than in 2010.

Market pulp prices have fallen over 10 percent from their peak in June

The NBSK pulp price has fallen from its record high in June earlier this year. In just four months, the price has come down almost $100/ton to $928/ton as of October 15, according to FOEX. There are no indications that the price slide will stop anytime soon. Most observers in the industry agree that prices will continue downward for the rest of the year; the question is only how long will it take until markets turn around later in 2012.

NBSK prices in both North America and Europe were at, or slightly higher than, the price in the third quarter this year as compared to the same quarter last year, ranging between $950/ton and $1025/ton. These historically high prices started to slide towards the end of the third quarter. Currently Western European pulp prices are slightly lower than in North America.

Hardwood pulp prices have fallen much faster than softwood pulp prices the past quarter. This has particularly been the case for BHKP going to China. Prices for Eucalyptus pulp shipped to China were around $650/ton in September. During October, Chinese buyers have been delaying their orders in an attempt to push prices down even further. The strategy seems to have worked because there has recently been pulp reportedly going for between $550-600/ton.

Production of market pulp Jan-July (million tons)

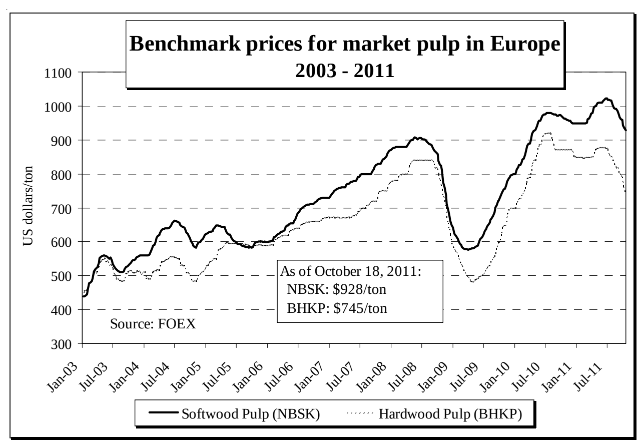
	2010	2011	Chg (%)
North America	8.3	8.9	+7
West Europe	5.4	5.7	+6
Latin America + NZ	8.4	9.1	+8
Rest of the world	4.1	4.1	0
Total, world	**26.2**	**27.8**	**+6**

NBSK prices in Europe, the US and China ($/ton)

	3Q/10	2Q/10	3Q/11	Sep
W. Europe	950-980	1010-1040	**950-1025**	950
US	990-1020	1020-1040	**970-1020**	970
China	780-830	850-930	**810-840**	830

BHKP prices in Europe, the US and China ($/ton)

	3Q/10	2Q/10	3/11	Sep
W. Europe	870-920	850-880	**750-850**	780
US, South	860-930	850-860	**840-900**	850
China	780-850	730-780	**630-730**	655



Note.

Prices and production data are from the market newsletter Pulpwatch*, courtesy of Hawkins Wright in the UK (www.pulpwatch.com).*

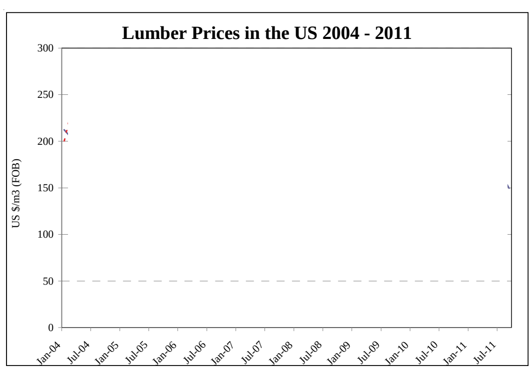
Lumber Market Update 3Q/11

Lumber markets weakened throughout the world during the 3Q.

Although there is limited production data available for the full quarter, there are early reports indicating lower production levels in the US, Eastern Canada, the Nordic countries, Russia and a number of countries in Europe. In addition, a number of the largest lumber-consuming countries in the world imported less lumber in July and August than they did in the previous months. Some of these countries included the US, the UK, Germany and France. Even the fast increase in imports to China seen earlier in the year slowed down during the summer months.

US lumber prices in September lower than last year

Despite the weak housing market in the US, lumber production was up a surprising nine percent the first half of 2011 as compared to the same period last year, according to the WWPA. The increases were about eleven percent in the South and six percent in the West. Much of the increase in production has been because of higher exports to China, but there has also been a three percent increase in domestic demand for lumber this year. In July, US production fell eight percent from June, but this was probably a temporary decline. WWPA reports that sawmills in Western US increased their production again by 17 percent in August because of a jump in exports to China.

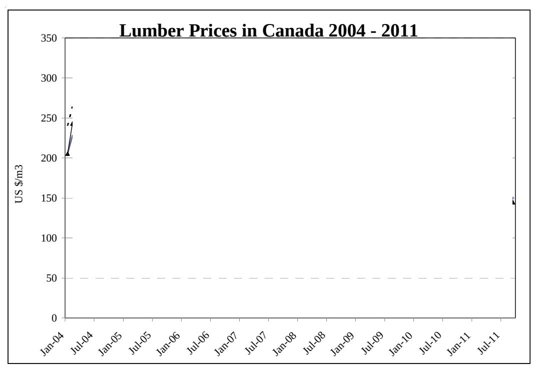


Lumber Prices in the US 2004 - 2011

Lumber prices have trended upward the past few months but are still lower than earlier this year. The RL Index, which tracks the most common lumber grades in North America, stood at $154/m3 in September. This was down from $175/m3 in the 1Q, but up from $147/m3 one year ago (see graph).

Sawmill operating rates higher in BC than in Eastern Canada

Sawmills in Western Canada and Eastern Canada face two different realities. Lumber producers in the provinces of Quebec and Ontario have few choices other than selling their products into the domestic market or to the US. With both markets being in decline this year, many sawmills have been forced to reduce production or close their operations. So far, this year's production has been down two percent compared to last year's level, and the operating rate has been the lowest in North America at 73 percent. In British Columbia, sawmills have been running at an 83 percent utilization rate thanks to continued strong exports to Asia. Production during the first seven months reached 7.2 million m3, or 6.5 percent higher than the same period last year.



Lumber Prices in Canada 2004 - 2011

Prices for SPF lumber have not moved much the past six months, in either in Eastern or Western Canada. SPF from Quebec delivered to the US averaged US$200/m3 this September, down from US$240/m3 in September 2010, according to Madison's Lumber Reporter. SPF and Douglas-fir prices in BC have seen a similar price decline the past year (see graph).

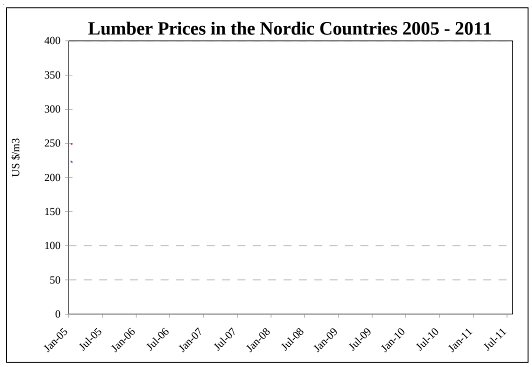
Stable lumber prices and production in the Nordic countries

Lumber production levels in both Sweden and Finland have been fairly stable this year, with production averaging 1.4 million m3 and 800,000 m3 per month,

Lumber Market Update 3Q/11 *continued*

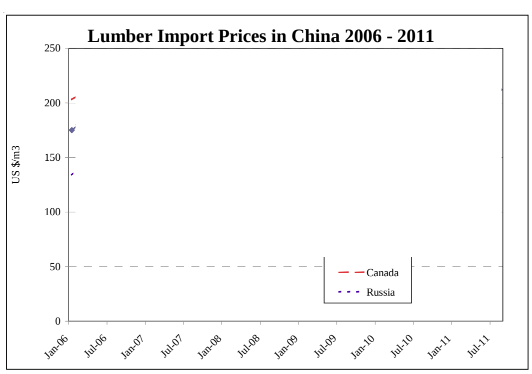
respectively. Production in both counties is likely to be higher this year than in both 2009 and 2010, but lower than in 2008 before the financial crises. Lumber exports have been slightly stronger so far this year, and the total 2011 shipments for the two Nordic countries may reach the highest level since 2007.

With the steady demand for lumber both domestically and in the export market, lumber prices have not changed much in US dollar terms for almost a year (see graph). There was reportedly a slight increase in the Swedish export price for both pine and spruce lumber in August because of higher export volumes.



Value of Canadian lumber in China up over 50 percent in two years

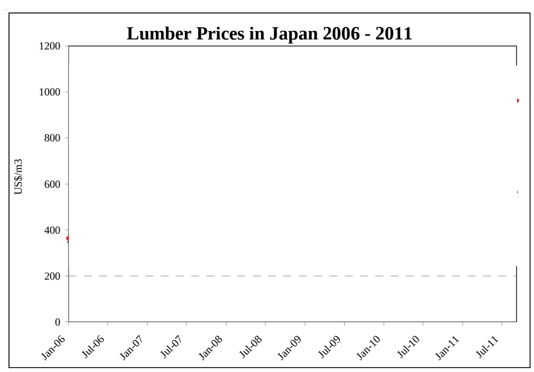
The average value of imported softwood lumber to China has steadily trended upward for over two years, reaching a new record high of US$212/m3 in August, according to Customs data. Prices for lumber from Canada, which is the largest supplier to China, have gone up the fastest, from an average of $135/m3 in May 2009 to $205/m3 in August of this year (see graph). The substantial price increase the past two years is not only the result of higher costs for the lower-grade lumber which has been the dominant product segment for Canadian lumber, but also a reflection of an increased share of higher quality lumber being exported to China.



Higher lumber imports to Japan in 2011

Housing starts of wooden houses in Japan have gone up by 5.4 percent during the first eight months this year as compared to the same period last years. There has actually been a steady increase in housing starts over the summer and fall, from 34,000 starts in May to 47,000 starts in August. Year-to-year the rise has been 11.5 percent.

Softwood lumber imports to Japan are up 11 percent so far this year and total imports for the year may reach close to seven million m3, the highest import volumes since 2006. Canada continues to be the largest supplier followed by Russia, Sweden and Finland. The biggest changes from last year are that Austria, Russia and Finland have increased shipments by over 25 percent this year, and that Canada may export less to Japan this year than in 2010. Both domestic and import prices have trended upward the past 12 months (see graph).



Sources: Japan Lumber Journal (Japan), Madison Lumber Reporter (SPF and Douglas-fir in North America), Random Lengths (pine in Southern US), Metla (Finland) and SCB (Sweden). Additional sources are customs statistics and the WRI's database.

Notes. All prices are for kiln-dried lumber, except for Sugi and Russian pine pre-2009.

Biomass Market Update 3Q/11

North American pellet exports to Europe on pace to a new record in 2011

The European Union has stated that by 2020, at least 20 percent of total energy consumption should be supplied by renewable energy resources. In an effort to reach this target, many countries have increased their consumption of woody biomass in the form of both wood chips and pellets over the past few years. In 2010, almost 12 million tons of wood pellets were consumed on the continent, which was about 20 percent higher than the previous year.

Demand for wood pellets in some European countries, including Sweden, the Netherlands, Belgium, Italy, Denmark, and the UK has outpaced domestic production in these countries over the past few years. This has resulted not only in increased imports from neighboring countries, but also from North America. Over the past ten years, Canada has been the major overseas supplier of pellets to Europe, reaching about one million tons in shipments in 2010.

The US did not start exporting pellets until 2008 when 85,000 tons were shipped to the Netherlands, but exports have since taken off, reaching almost 600,000 tons in 2010. In fact, total shipments from the US and Canada have almost doubled in just two years. During the first six months of 2011 overseas imports to Europe reached over 700,000 tons, it is likely that 2011 will prove to be a new record year in pellet trade over the Atlantic.

The majority of North American pellets have been shipped to the Netherlands, the United Kingdom and Belgium, with occasional shipments to Sweden and Denmark. In 2010, almost 50 percent of the Atlantic trade was destined for the Netherlands, while one-third landed in ports in the UK.

US woody biomass prices lower than two years ago

Prices for woody biomass, whether it was sawmill byproducts, forest residues or urban wood waste, were lower in both 2010 and 2011 than in 2009 in most regions throughout the US, but were higher in most regions of the US than they were five years ago. This drop seen in 2010 and 2011 was mainly the result of low prices for fossil fuels, which reduced the interest in switching to more expensive green energy. In the major biomass-consuming regions of the US, forest biomass prices ranged between $40-60/odmt in the 3Q, while mill biomass were $10-20/odmt less, according to our sister publication, the North American Wood Fiber Review.

As long as natural gas and oil prices are relatively low, there will not much increase in demand for biomass and prices will not move up much short-term. Long-term, however, the increased competition for wood chips and smaller logs between pulp mills, composite board manufacturers and energy producers are likely to push wood costs, including biomass, upward.

Low operating rates in the European pellet industry

The expansion of pellet capacity in Europe over the past five years has been much faster than demand. In both 2009 and 2010, operating rates have been at approximately 60 percent, so there are ample opportunities to increase production should the demand and price structure permit. Interestingly, pellet consumption increased by over two million tons (+21 percent) from 2009 to 2010, according to data from AEBIOM. Much of this increased demand has been for industrial pellets, and the higher demand has, to a large extent, been met by imported pellets from North America and Russia rather than with in EU.

Pellet production in Austria likely to reach a record high in 2011.

Pellet production in Austria was up by nine percent the first six months of the year compared the first half of 2010, according to proPellets Austria. With the same pace expected in the coming months, it is estimated that total production will reach over 900,000 tons for

Biomass Market Update 3Q/11 *continued*

the year, which would be a record high, and an almost 50 percent increase in just three years. A majority of the production is consumed domestically, with about 20 percent being exported to neighboring Germany and Italy.

Over the past five years, the pellet industry in Austria has expanded rapidly, much faster than the demand for pellets both domestically and in the export market. As a result, the operating rate in the industry has fallen from over 95 percent in 2006 to less than 70 percent this year.

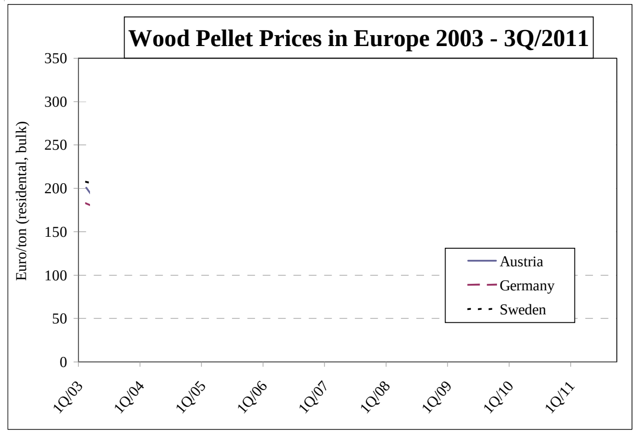
Large quantities of wood debris from the earthquake in Japan may be turned into energy

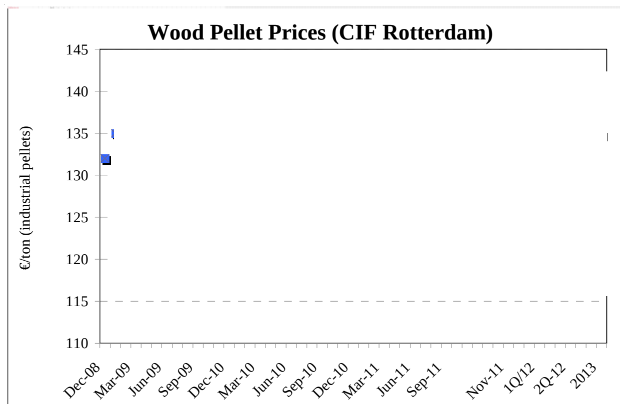
It is estimated that at least five million tons of wood debris, which can be used for energy, were generated from the earthquake and tsunami that hit Japan earlier this year. There are therefore now plans in consideration to utilize this resource by building biomass power plants adjacent to sawmills and plywood plants which are being rebuilt northeast of Tokyo. The plan is to generate both electricity to the processing plants and heat to the surrounding house developments.

Big price discrepancy between the three major pellet markets in Europe

In the 3Q, pellet prices in Sweden fell for the first time in almost three years. The average price for residential pellets (bulk) was €281/ton, down from €296/ton in the 2Q. In Germany and Austria, pellet prices only changed a few Euros in the 3Q, averaging €228/ton in both countries. The price discrepancy between the three largest markets in Europe is currently the widest it has been since 2007.

The price for industrial pellets delivered to Rotterdam, the Netherlands, was €132/ton in September, according to Endex. Future contracts are moving upward, and will likely be closer to €135/ton in 2013.





Source: Endex

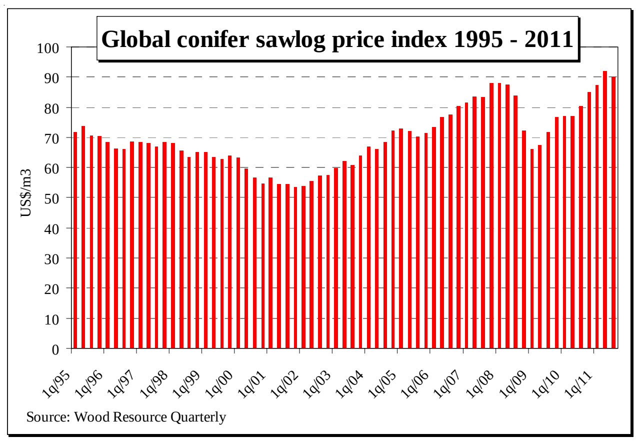
Sources: Endex (Netherlands), ProPellets (Austria), DEPV (Germany), Energimyndigheten (Sweden) and ÄFAB (Sweden). Additional sources are industry contacts and the WRI's database.

For more detailed price and market information for the biomass market in the US and Canada, please refer to our sister publication, the *North American Wood Fiber Review.*

Sawlog Market Update 3Q/11

Global sawlog price index fell for the first time since early 2009

With weaker demand for lumber around the world, sawlog prices fell in a majority of the 21 markets tracked by the WRQ. The Global Conifer Sawlog Price Index (GSPI) declined in the 3Q for the first time since the 1Q/09 to $90.18/m3. With a few exceptions, prices fell in both local currencies and in US dollar terms. The only region that saw any substantial price increase in the 3Q was British Columbia, where prices were up 5-7 percent from the 2Q. This region has benefited from higher lumber exports and production has gone up during 2011.



The biggest price declines the past quarter have occurred in Sweden, Poland, Russia and Japan, ranging between 6-12 percent down from the 2Q/11. The three ladder countries are major exporters of lumber, and shipments to European markets and Northern Africa have fallen this summer and fall.

Western Canadian sawlog prices impacted by lumber demand in Asia

In Canada, sawlog prices continued to rise, less in the eastern provinces than in the west. In British Columbia, the price for Coastal Hemlock rose over three percent to US$60/m3 in the 3Q, while the price for spruce-pine-fir (SPF) logs in the Interior BC rose nearly seven percent to US$46/m3. Prices in both regions were the highest they have been since the global financial crisis in 2008.

On the BC coast, sawlog prices were not much more expensive than pulplog prices, an indication of the competition for roundwood between Canadian sawmills and pulpmills for certain grades. The piles of logs at export docks have spurred some political opposition stating these represent value-added jobs being shipped overseas. The argument however, is somewhat blunted by the fact that a number of sawmill in the province, particularly on the coast, have reopened or expanded production hours in the past 18 months as a result of increased lumber demand from China.

Log costs in Eastern Canada remain high

Eastern Canadian log prices have been very steady this year despite declining lumber production. The region's sawmills continue to have among the highest wood costs in all of North America, which is partly a reflection of continued uncertainties of future log supply constraints. Practically all of the provincial governments in Eastern Canada forecast lower Annual Allowable Cuts in the future. Other problems making it difficult for sawmills in this region to benefit from competitive wood costs are low timber volumes per hectare, small average stem size, and relatively long transportation distances, all of which are factors that will keep log costs relatively high.

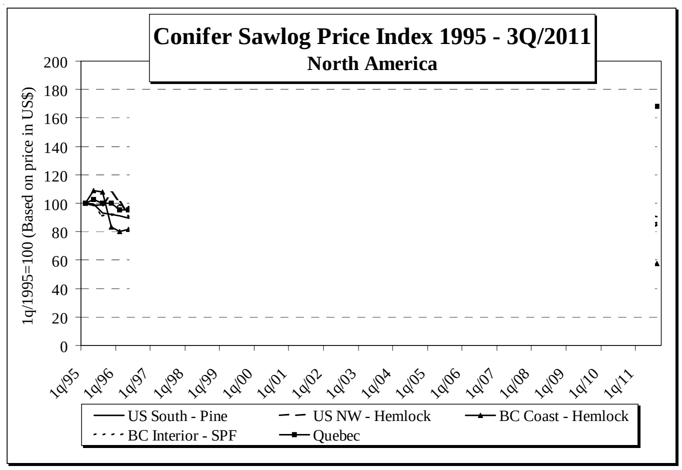
Global trade of softwood logs estimated to be up about 15 percent this year

Global trade of softwood logs in 2011 is on track to be the highest it has been in four years. Based on trade data for the period January through July, it could very well be that total log trade could reach over 85 million m3 this year. This would be almost 15 percent higher than last year and 35 percent more than in 2009. Not surprisingly, demand in China is the key reason for this dramatic surge in log shipments. An estimated 31 percent of the world's softwood log imports are to China, followed by Germany, Austria and South Korea, with each country accounting for less than ten percent of global trade. The biggest decline in imports over the past five years has been to South Korea, Japan and Finland, which all are likely to import less than half of the log volume this year as compared to 2006.

Conifer Sawlog Price Index 1995-2011

(1q/1995=100, Based on US dollars)

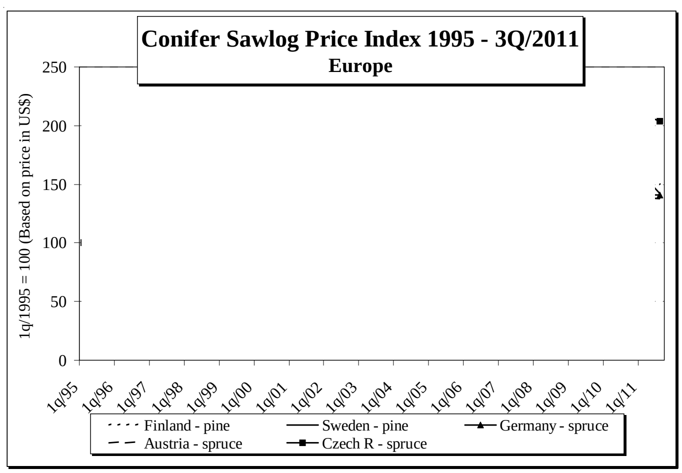
It is important to note that sawlog prices presented in the graphs and tables in this publication should be used as indicators when comparing price trends in different regions rather then for absolute price comparisons. Sawlog qualities and properties of conifer species vary in different parts of the world and therefore they are not always directly comparable. Also bear in mind that log grades and volume/weight measurements do differ between regions. Factors used to convert to cubic meter under bark are estimates made by WRI and regional contacts.



North America

(1q/1995=100)

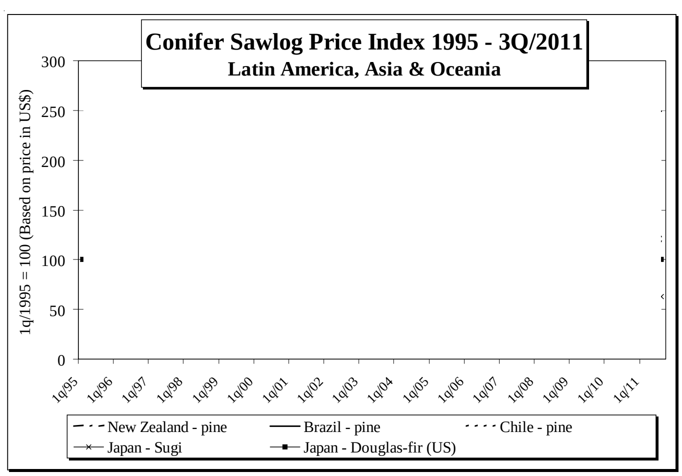
	US S	US W	BC C	BC I	Que
2002	99	71	50	73	106
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					



Europe

(1q/1995=100)

	Fin	Swe	Aus	Ger	Cze
2002	84	71	72	50	91
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					



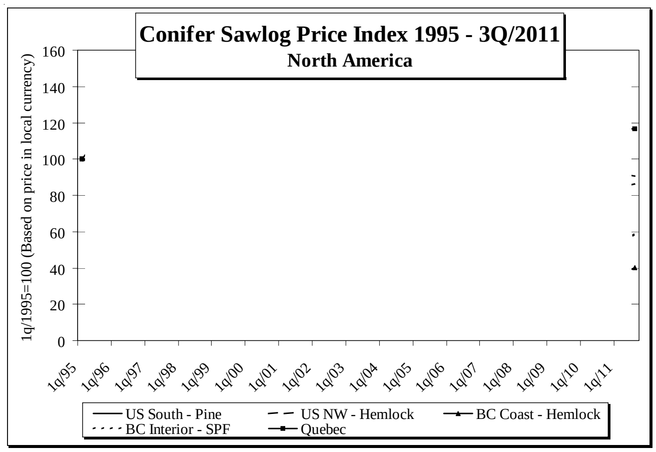
Latin America & Asia

(1q/1995=100)

	Bra	Chl	NZ	Jpn S	Jpn Df
2002	66	92	63	46	66
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					

Conifer Sawlog Price Index 1995-2011

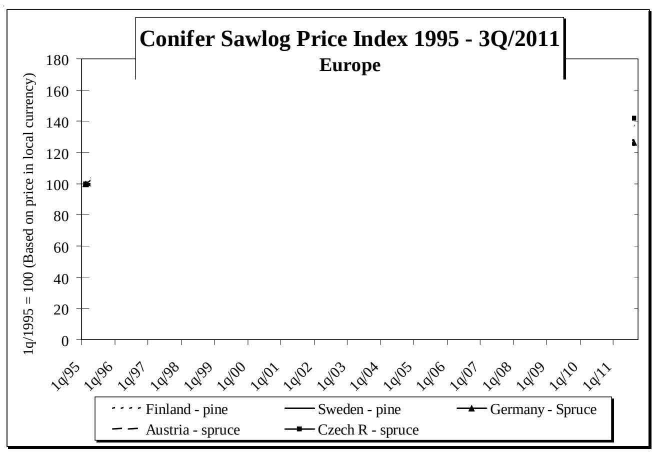
(1q/1995=100, Based on local currency)



North America

(1q/1995=100)

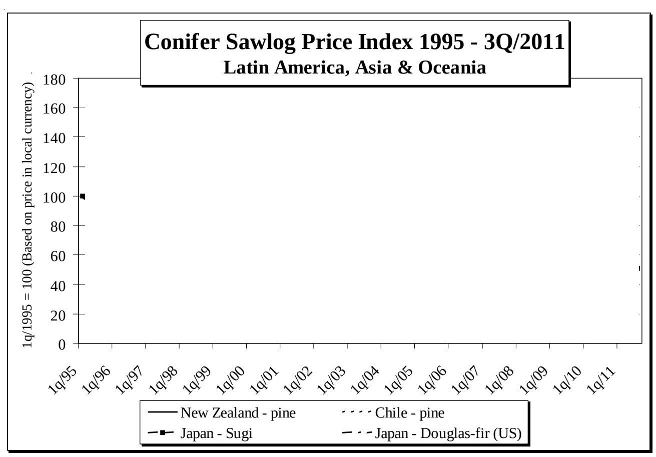
	US S	US W	BC C	BC I	Que
2002	99	71	50	81	119
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					



Europe

(1q/1995=100)

	Fin	Swe	Aus	Ger	Cze
2002	115	94	101	85	123
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					



Latin America & Asia

(1q/1995=100)

	Bra	Chl	NZ	Jpn S	Jpn Df
2002	230	143	86	60	87
2003					
2004					
2005					
2006					
2007					
2008					
2009					
2010					

Notes.

Three main criteria were used to choose geographical regions and conifer log grades for presentation in the WRQ:

1) Conifer lumber production in the region is among the twenty-five top producing regions in the world.
2) Conifer log grade/grades are commonly processed in the region.
3) Log species and grades are mainly average logs being processed into construction and better grades lumber in the region. The intention is to not include pruned logs or logs typically used to produce low-grade products such as pallets and packaging components.

Sawlog and Pulpwood Markets 3Q/11 - USA

US exported an estimated 1.2 billion dollars worth of logs to Asia last year

The flow of log trade in the Pacific Rim has changed both in value, volume and direction the past five years. The total value of logs exported from North America to Asia rose from 790 million dollars in 2006 to almost 1.2 billion dollars in 2010. The total volume shipped in 2010 to Asia was 10.6 million m3, which was over 70 percent higher than in 2006.

Log exports from the US have been surprisingly stable at approximately 10 million m3 from 2005 through 2009. However, this changed in 2010 when shipments jumped 52 percent to 16 million m3, of which approximately 60 percent was softwood logs. For many years, Canada has been the major destination for exported logs and accounted for approximately 40% of the total shipments in 2009. In 2010, this share fell to about 30 % because of the change in demand in Asia.

A record 70 percent of all logs from the US to Asia is now unloaded in China

A majority of the trade five years ago was that of Douglas-fir sawlogs shipped from Western US to Japan. Although Japan is still an important market for US log exporters, China has become the number one destination, surpassing Japan in 2010. In 2011, this trend continued and a record 70% of all Asia-bound logs have gone to China. During the first eight months of this year, US shipped 4.2 million m3 of logs to China and a total of 6.4 million m3 was leaving for Asian destinations. This was slightly more than the total shipments in 2010 and over 50 percent more than in 2009.

Substantial increases in sawlog prices in Western US the past two years

As a result of the increase in log exports, prices for both Douglas-fir and hemlock logs have steadily gone up the past two years. In the 3Q/11, Douglas-fir averaged \$87/m3 up from \$53/m3 in mid-2009 and the average hemlock log price have gone from \$43/m3 to \$76/m3 over the same time period. The dramatic increase in wood costs has not been good news for sawmills in the region that are predominantly selling their products domestically, since US lumber prices are hovering at historic lows and are close to, or below, production cost for many sawmills.

Wood fiber prices in US NW unchanged for now

The rise in softwood chip prices during the past 18 months in the Northwest came to a halt in the 3Q/11. The average price for residual chips was \$129/odmt, which was unchanged from the previous quarter but 43 percent higher than early 2010.

Increased access to forest stands over the summer months expanded the supply of both sawlogs and pulplogs in the 3Q. However, a number of sawmills were still taking additional downtime in late August due to the lack of logs priced to match the low lumber pricing. The reduced operating rates at some sawmills, which resulted in lower supplies of residuals, forced some pulpmills to source higher volumes of roundwood chips.

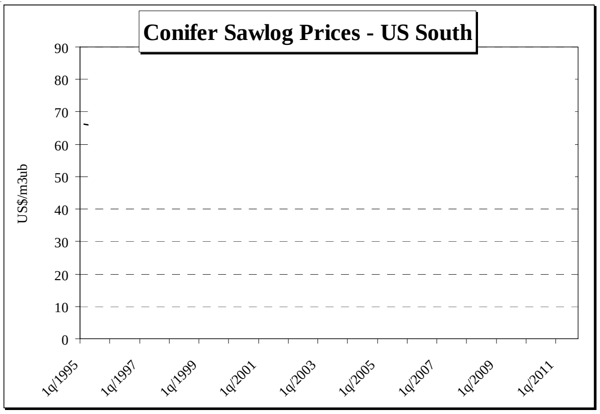
Sawlog and pulp log prices in the US South have been flat most of the year

In the US South, there were no dramatic events that had an impact on log prices. Both sawlog and pulplog prices remained unchanged from the 2Q. Pine sawlog prices averaged \$60/m3 in the 3Q, which is the same as most of the year but four dollars down from a year ago. Both hardwood and softwood pulplog prices have hovered around \$70/odmt during much of 2011. April's tornado caused widespread damage to forest stands in Mississippi and Alabama, but this wood has largely been salvaged, and Tropical Storm Lee in early September only temporarily slowed affected operations.

While sawmill production in the South has risen in 2011, the additional residual chip supplies have not noticeably moved chip prices this year.

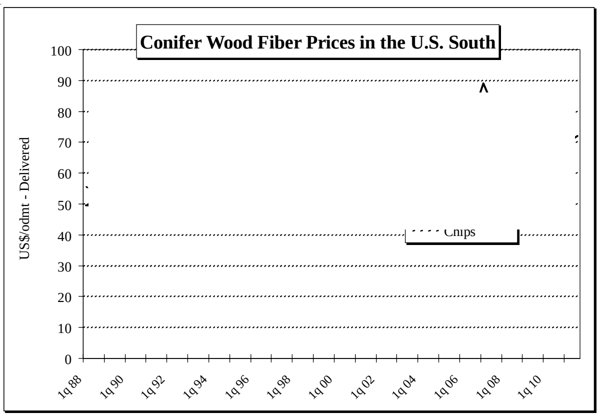
Note.
For more detailed market information for the US, including biomass markets, please refer to our sister publication, the *North American Wood Fiber Review.*

US South - Sawlog and Pulpwood Prices



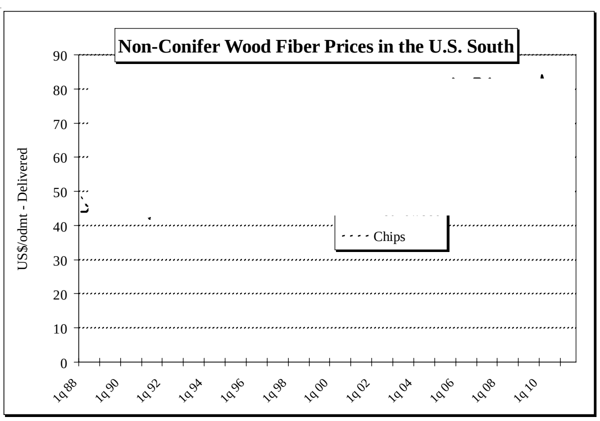
Pine Sawlog Prices
(US$/m3)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



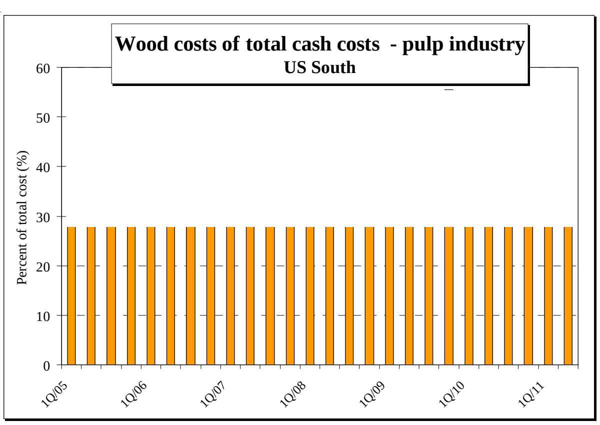
Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Non-Conifer Pulpwood Prices
(US$/odmt)

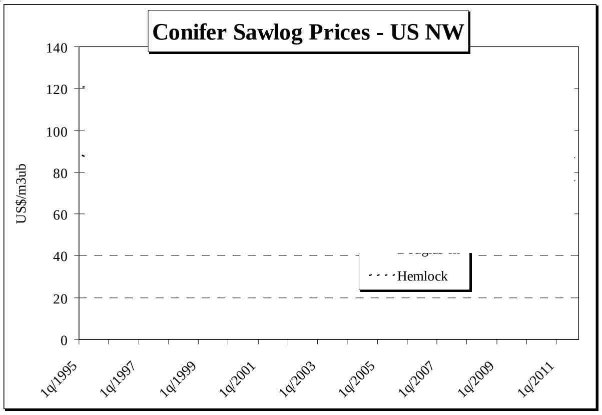
	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

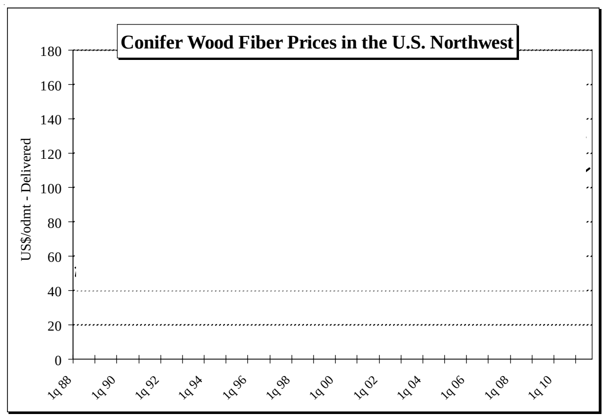
1q/2010	54.8
2q	54.9
3q	52.8
4q	53.4
1q/2011	54.1
2q	53.8

US Northwest - Sawlog and Pulpwood Prices



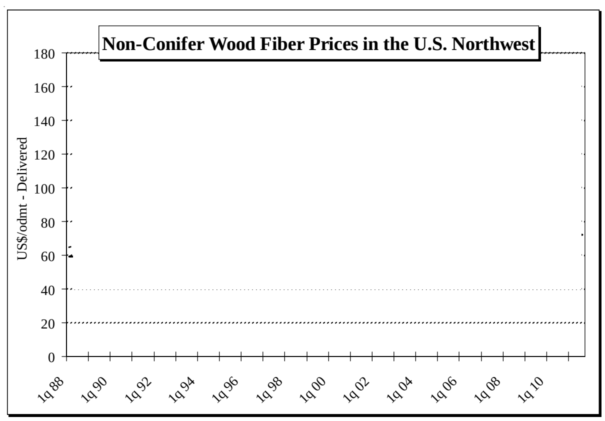
Conifer Sawlog Prices
(US$/m3)

	Douglas-fir	Hemlock
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



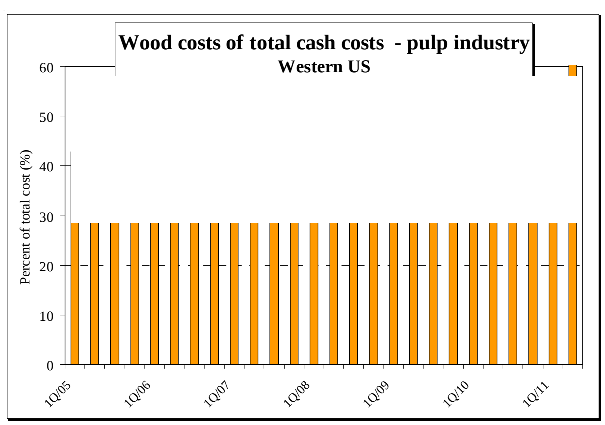
Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Non-Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

1q/2010	48.8
2q	49.5
3q	48.6
4q	54.9
1q/2011	54.3
2q	60.7

Sawlog and Pulpwood Markets 3Q/11 - Canada

Wood chip prices stabilize in British Columbia

Softwood chip prices, which are tied to market pulp prices, were essentially unchanged in the both the Coastal and Northern Interior regions in British Columbia in the 3Q. While market pulp prices have fallen recently, the formula calculations defer the influence on chip prices, therefore any prices reductions will most likely occur in the 4Q/11.

In contrast, BC Southern Interior softwood prices rose nearly eight percent from the 2Q and they are currently 20 percent higher than a year ago. The recent price increases reflect a "leveling" between the higher prices found in the North Interior and Coast regions, as well as the severe shortage of available fiber from the bush due to wet weather. The drop in chip inventories and subsequent increases in prices attracted some chip volumes from the US during the summer.

The wet weather that plagued the late spring and early summer across British Columbia has kept inventories of sawlogs tight. Several sawmills in the province took downtime due to log shortages. This reduced residual chip supplies and pulp mills had to purchase addition volumes of the more expensive roundwood chips. The Province saw both sawmills and pulpmills taking downtimes in the late 2Q and early 3Q as a mechanism to address these temporary fiber supply shortages.

BC pulplog prices stabilized in the 3Q, albeit at high levels

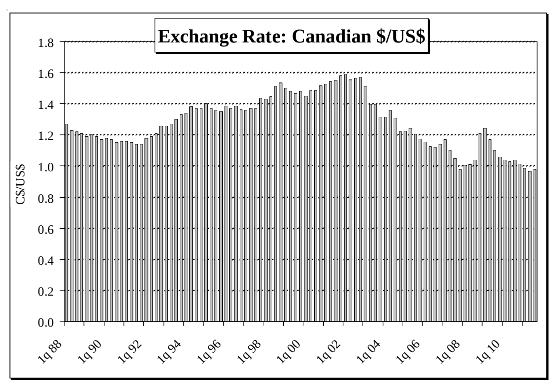
Improved weather conditions in the 3Q finally saw wood flows increasing. The increased availability meant that prices, already at record high levels, did not rise further, and pulplog prices rose only marginally. Conifer pulplogs were averaging C$50/m3 at the Coast. Douglas-fir pulplogs, though a much smaller component of the fiber supply and historically priced significantly lower, rose 15 percent.

Wood fiber prices level in Quebec and Ontario

Softwood and hardwood chip and roundwood prices remained level into 3Q/11 from the beginning of the year. Conditions remain essentially the same, with the region's sawmills historically focused on the US domestic market, and not in position to easily participate in the hot Chinese lumber market. Lumber production fell during the 2Q and into the summer, resulting in lower demand for logs. In US dollar terms, sawlog prices have trended upward from just over $60/m3 in 2009 to $73/m3 in the 3Q/11.

Roundwood prices continue to rise in New Brunswick and Nova Scotia

Softwood roundwood prices in the Maritime Provinces of New Brunswick and Nova Scotia rose nearly six percent in the 3Q from the previous quarter. The delivered price of C$54/m3 represents a 35 percent increase from one year ago. Hardwood roundwood prices rose another two dollars from the previous quarter to C$44/m3. The wood fiber price increases reflect the continued uncertainty of wood supplies from private woodland owners along with concerns over possible regulatory changes on Crown wood tenures. However, the shutting of New Page's Port Hawkesbury plant in September is likely to take the steam out of further rises, at least in Nova Scotia.

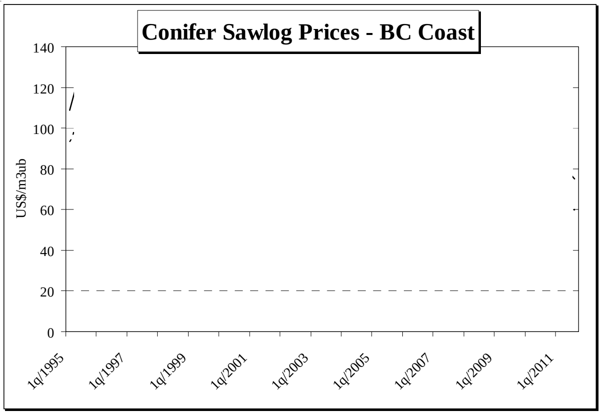


Canadian $/US$

1q/2010	1.041	1q/2011	0.986
2q	1.028	2q	0.967
3q	1.040	3q	0.978
4q	1.014		

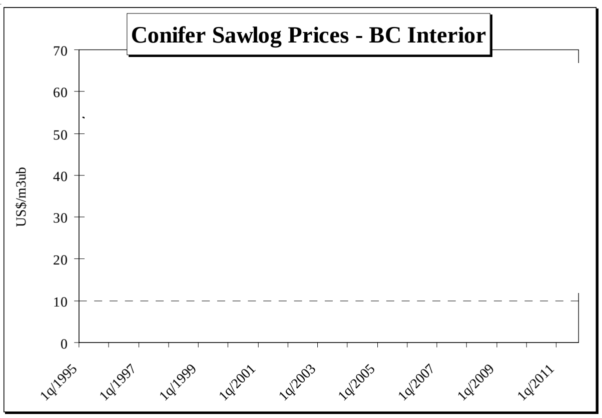
Note.
For more detailed price and market information for Canada, please refer to our sister publication, the *North American Wood Fiber Review.*

Canada West - Sawlog and Pulpwood Prices



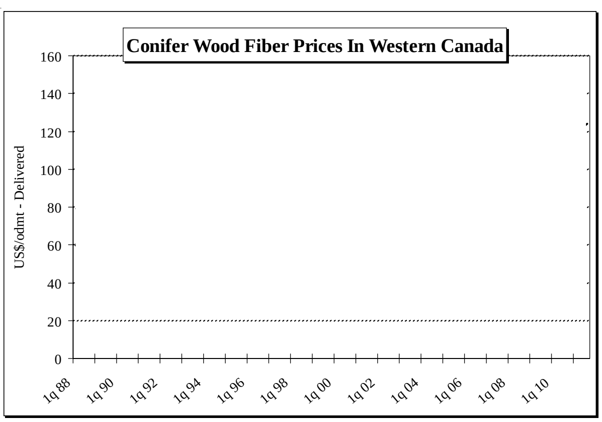
Conifer Sawlog Prices - Coast
(US$/m3)

	Douglas-fir	Hemlock
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



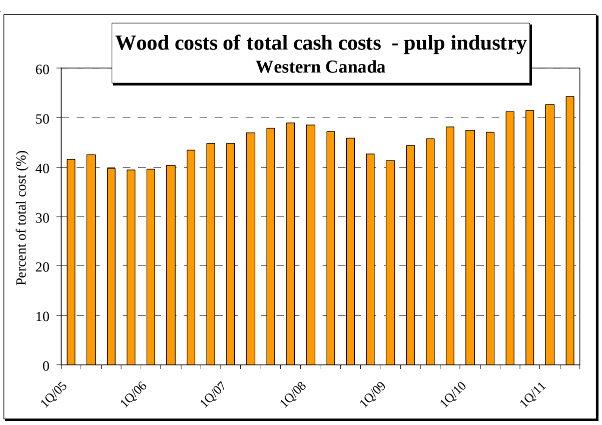
Conifer Sawlog Prices - Interior
(US$/m3)

	Spruce/pine/fir
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Conifer Pulpwood Prices
(US$/odmt)

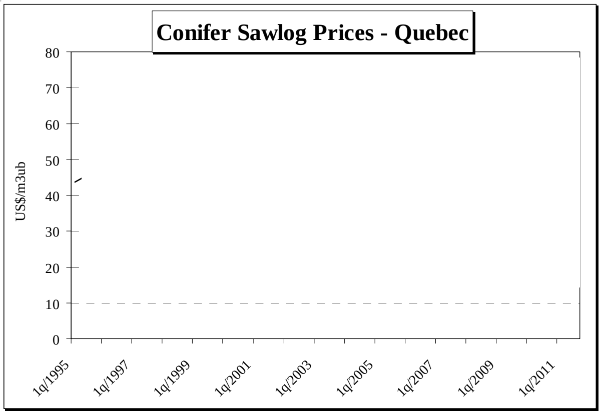
	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

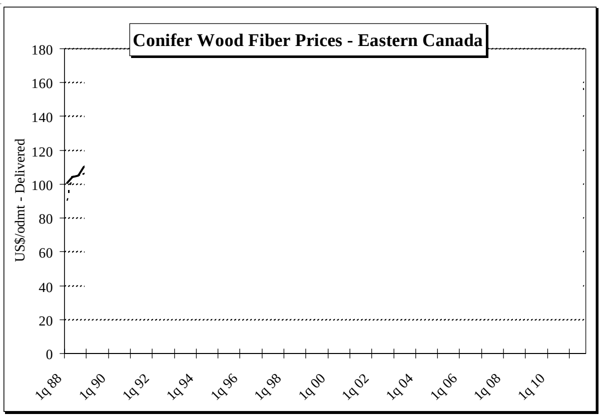
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	

Canada East - Sawlog and Pulpwood Prices



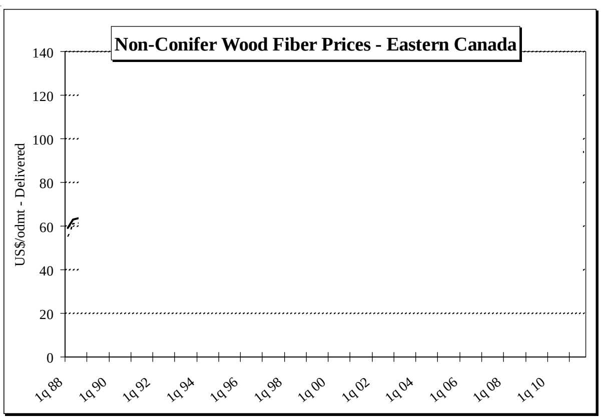
Conifer Sawlog Prices
(US$/m3)

	Mixed
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



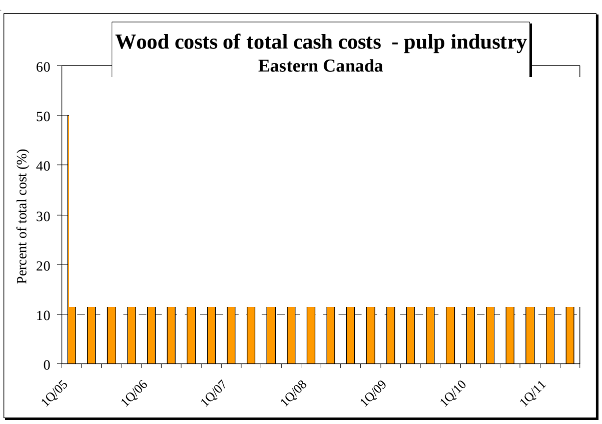
Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Non-Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	

Sawlog and Pulpwood Markets 3Q/11 - Europe & Russia

Falling sawlog prices throughout Europe but still higher than 12 months ago

Wood costs have gone down for many sawmills throughout the continent in the 3Q, mostly due to slowing lumber sales and an expectation of lower production levels in the coming six months.

In the Nordic countries, there were a number of announcement of curtailments for the fourth quarter. Although sawlog prices fell in a majority of the ten countries covered by the WRQ in the third quarter, they were still higher than the same quarter last year. For most markets, log prices have come up between $15-25/m3 during the past 12 months, with only NW Russia and Norway seeing lower price increases.

Many of the continent's sawmills are currently paying close to the highest sawlog prices seen in at least 17 years, and this is occurring at a time when lumber prices are far from any record highs, and are even in decline in some markets. Because of the weakening lumber demand it can be expected that log prices will soften during the winter months.

Wood fiber costs in France close to all time highs

In Northeastern France, log prices have long been higher than in the Southern region of the country because of the influence of competition from sawmills and pulp mills in Belgium and Germany. Both softwood and hardwood pulplog prices in the northeast have moved up substantially the past few years. Softwood pulplog prices averaged about $100/odmt in 2009 and were close to an all-time-high of US$160/odmt in the 3Q/11.

Pine log prices in Southern France have been about ten percent lower both because of less competition but also because of large volumes of damaged timber from the storm "Klaus" last year. The lower pulplog and chip prices in the South has meant that some pulp mills and board mills in Northern France have been hauling wood from this region.

Log exports from Russia is picking up

Log exports from Russia have been in sharp decline from 2006 to 2010, falling from 51 million m3 to 22 million m3 during the five-year period. This year however, the trend has turned and the total shipments may reach close to 24 million m3. The log export market is still very important to many companies and their employees in the Russian Federation, as about 20 percent of the softwood and 10 percent of the hardwood harvests are shipped out of the country.

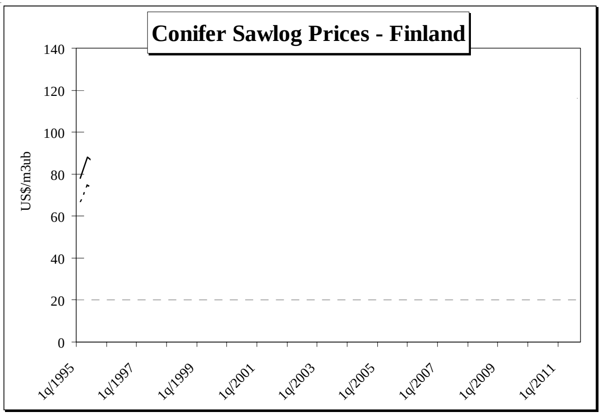
This recent upward trend can be expected to continue in 2012 as Russian log export taxes are likely to be reduced. During discussions between Russian and EU representatives in December last year, it became apparent that Russia has been pressured to reduce log export taxes if the country wants to join the World Trade Organization (WTO). However, it was still not clear as of late October exactly what the new log export taxes may be and when they will be implemented.

Softwood log taxes may fall to somewhere between 5-10 percent of the value of the logs, and hardwood log taxes will probably be lower than those for softwood. Even if log export taxes do decline, it is not likely that log buyers from other countries will substantially increase their sourcing of logs from Russia. Log export volumes will probably never come back to the high levels seen in 2005 before the higher taxes were implemented.

Higher supply and lower demand reduces sawlog and pulplog prices in Russia in the 3Q

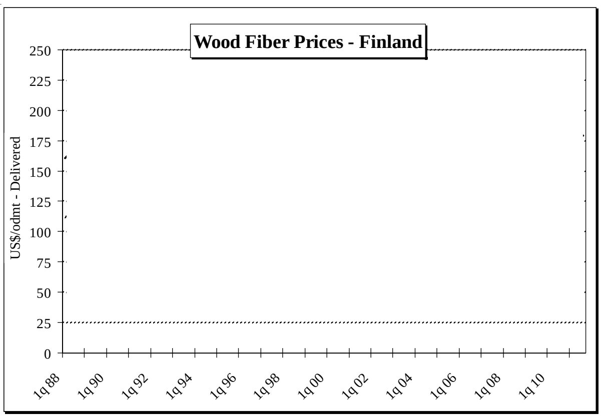
Sawmills in Northwest Russia have cut back production levels in the 3Q because of reduced domestic demand for lumber. Higher harvesting activities during the summer months have also contributed to lower log costs both for Russian sawmills and pulpmills. Sawlog prices fell about 12 percent to an average of $61/m3 in the 3Q. Pulplog prices fell about ten percent to $37/m3 for softwood and $30/m3 for hardwood pulplogs. Russian pulp mills currently have some of the lowest wood fiber costs in the world.

Finland - Sawlog and Pulpwood Prices



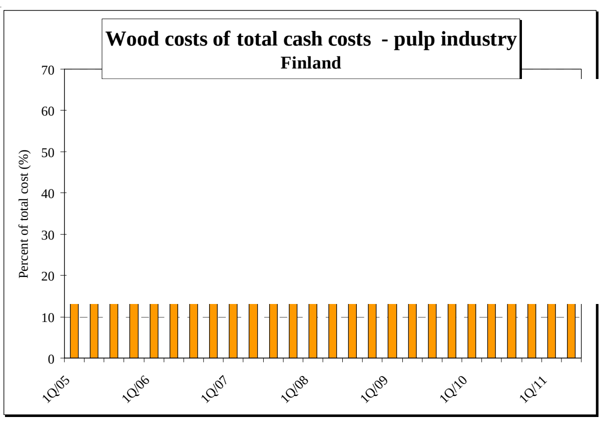
Conifer Sawlog Prices
(US$/m3)

	Pine	Spruce
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



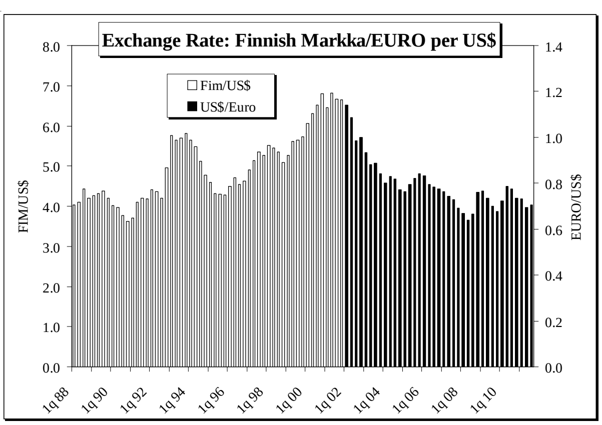
Pulplog Prices
(US$/odmt)

	Conifer	Non-Con
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

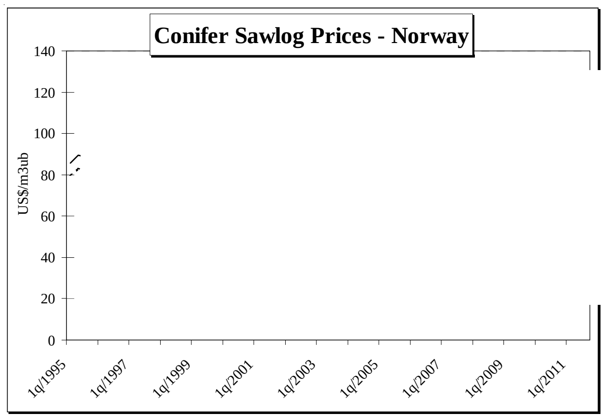
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Euros/US$)

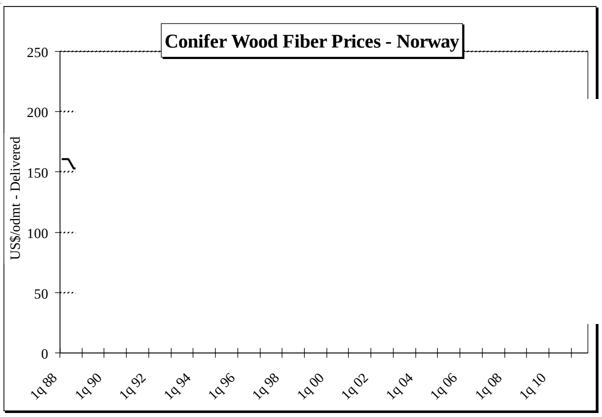
1q/2010	0.722
2q	0.785
3q	0.776
4q	0.736
1q/2011	0.732
2q	0.694
3q	0.707

Norway - Sawlogs and Pulpwood Prices



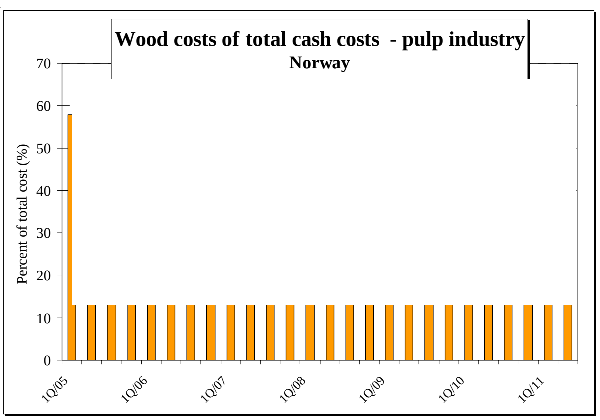
Conifer Sawlog Prices
(US$/m3)

	Pine	Spruce
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



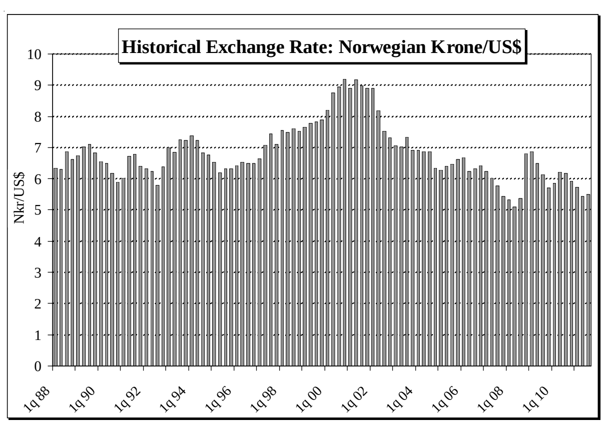
Conifer Pulpwood Prices
(US$/odmt)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

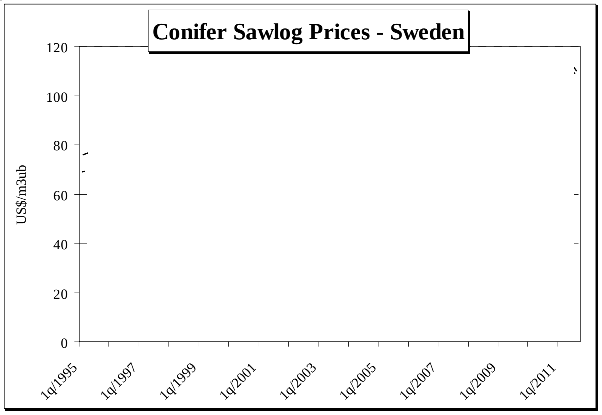
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Kroner/US$)

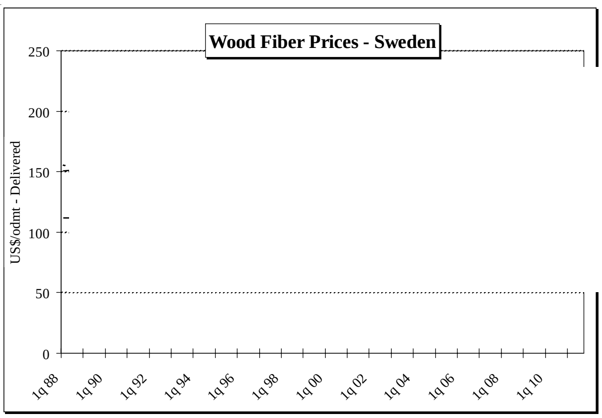
1q/2010	5.86
2q	6.22
3q	6.18
4q	5.93
1q/2011	5.73
2q	5.43
3q	5.49

Sweden - Sawlog and Pulpwood Prices



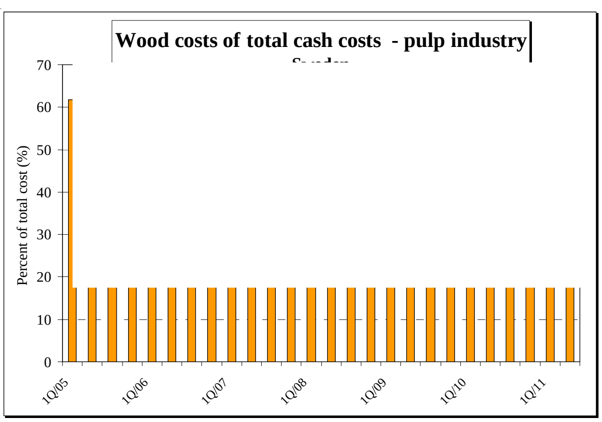
Conifer Sawlog Prices
(US$/m3)

	Pine	Spruce
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



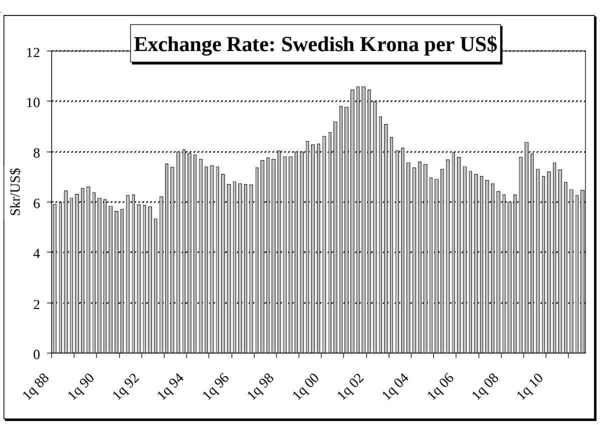
Pulpwood Prices
(US$/odmt)

	Chips	Roundwood	
	Con	Con	Non-c
1q/2010			
2q			
3q			
4q			
1q/2011			
2q			
3q			



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

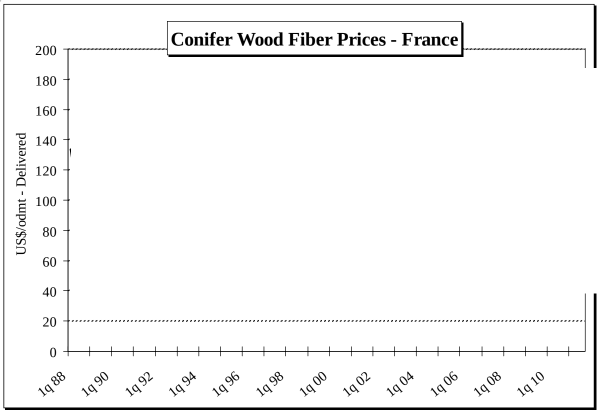
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Kronor/US$)

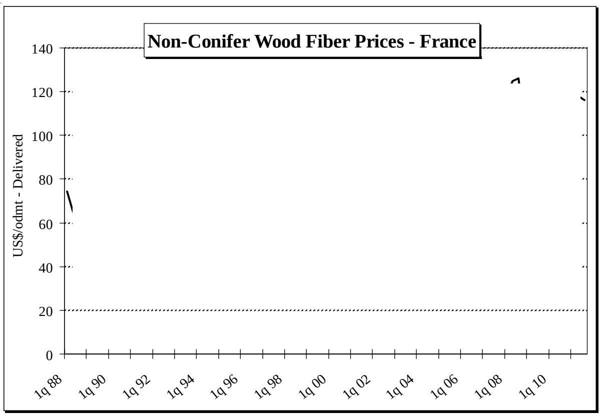
1q/2010	7.20
2q	7.57
3q	7.28
4q	6.78
1q/2011	6.49
2q	6.25
3q	6.46

France - Pulpwood Prices



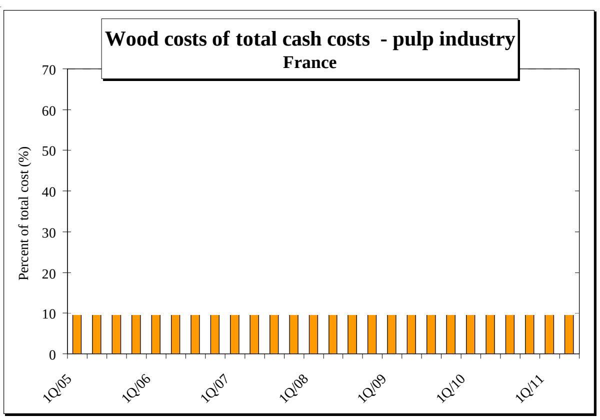
Conifer Pulplog Prices
(US$/odmt)

	Chips	Roundwood
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



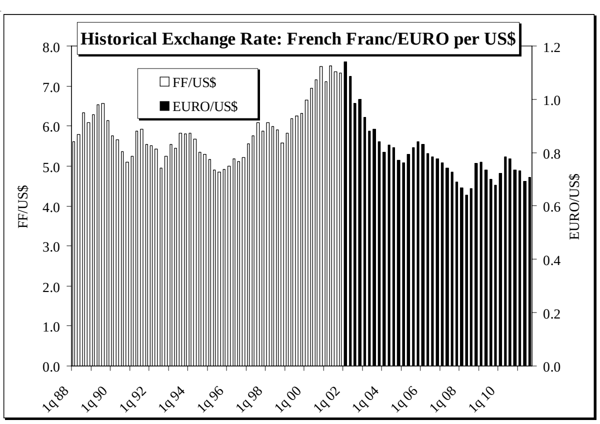
Non-Conifer Pulplog Prices
(US$/odmt)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

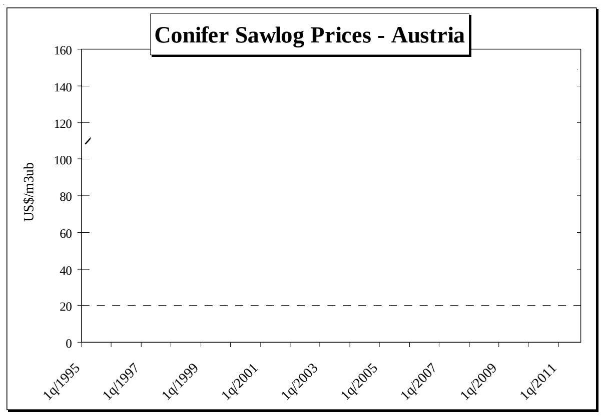
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Euro/US$)

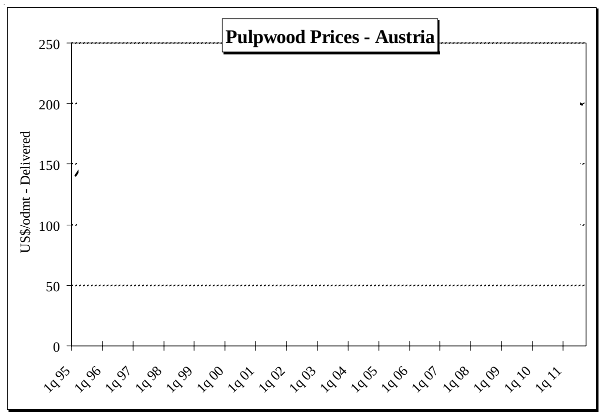
1q/2010	0.722
2q	0.785
3q	0.776
4q	0.736
1q/2011	0.732
2q	0.694
3q	0.707

Austria - Sawlog and Pulpwood Prices



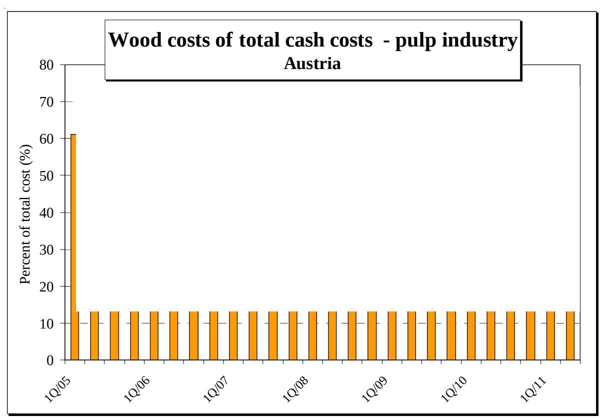
Conifer Sawlogs
(US$/m3)

	Spruce
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



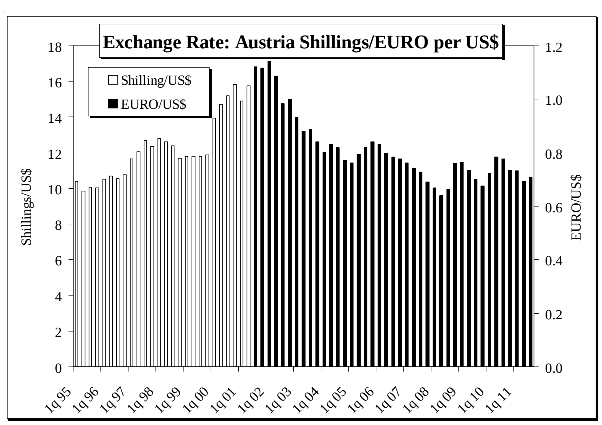
Pulpwood Prices
(US$/odmt)

	Conifer
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

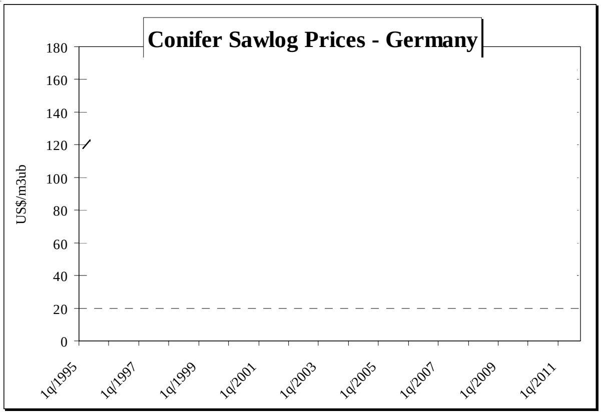
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Euro/US$)

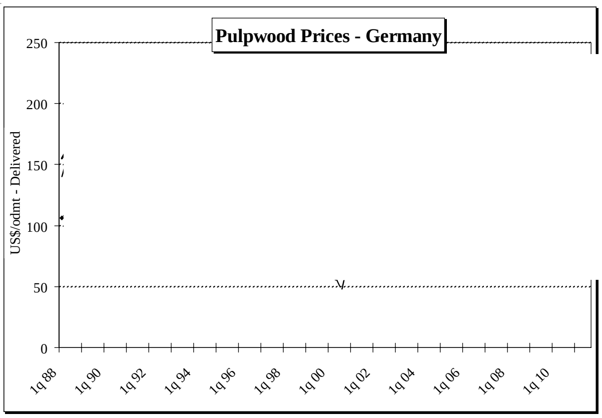
1q/2010	0.722
2q	0.785
3q	0.776
4q	0.736
1q/2011	0.732
2q	0.694
3q	0.707

Germany - Sawlog and Pulpwood Prices



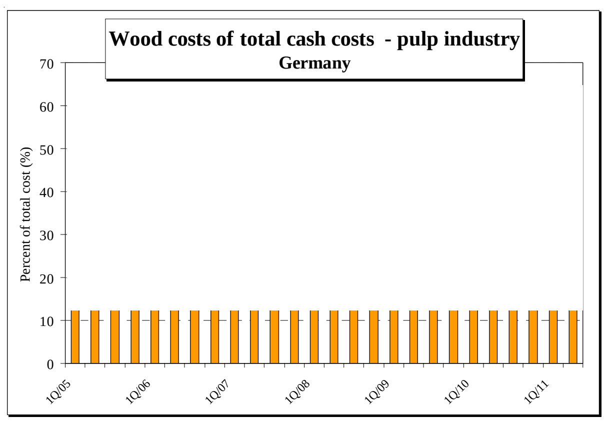
Conifer Sawlogs
(US$/m3)

	Spruce
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



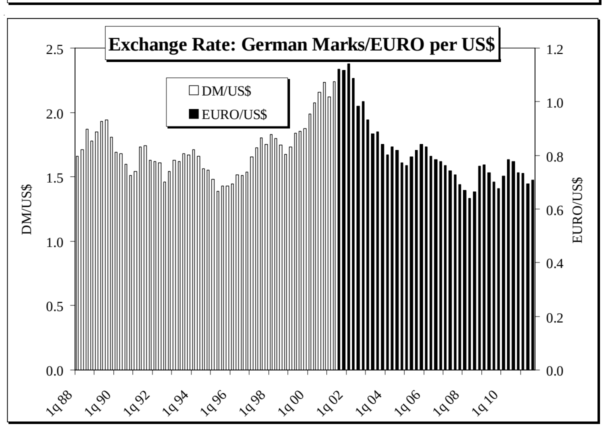
Pulpwood Prices
(US$/odmt)

	Chips Con	Roundwood Con	Roundwood Non-c
1q/2010			
2q			
3q			
4q			
1q/2011			
2q			
3q			



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

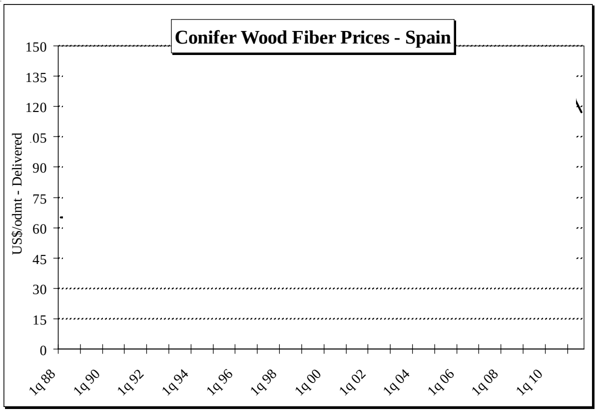
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Euro/US$)

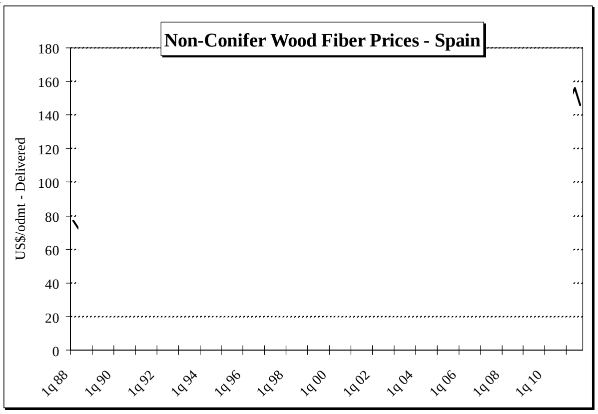
1q/2010	0.722
2q	0.785
3q	0.776
4q	0.736
1q/2011	0.732
2q	0.694
3q	0.707

Spain - Pulpwood Prices



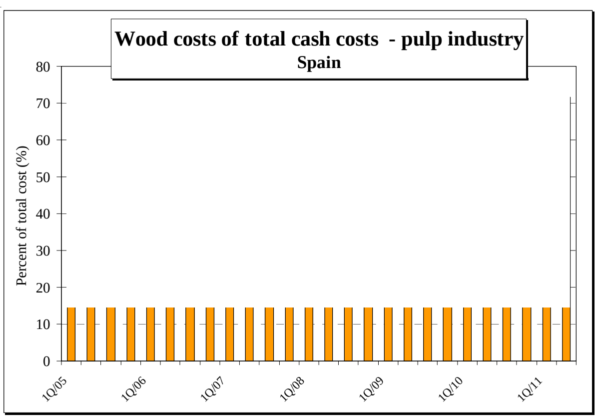
Conifer Pulpwood Prices
(US$/odmt)

	Rdwd
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



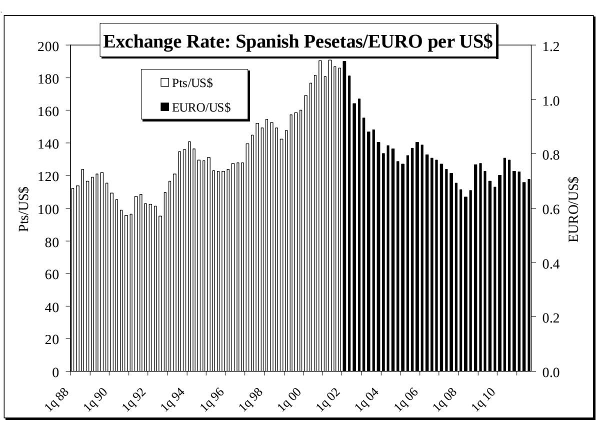
Non-Conifer Pulplog Prices
(US$/odmt)

1q/2010
2q
3q
4q
1q/2011
2q
3q



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

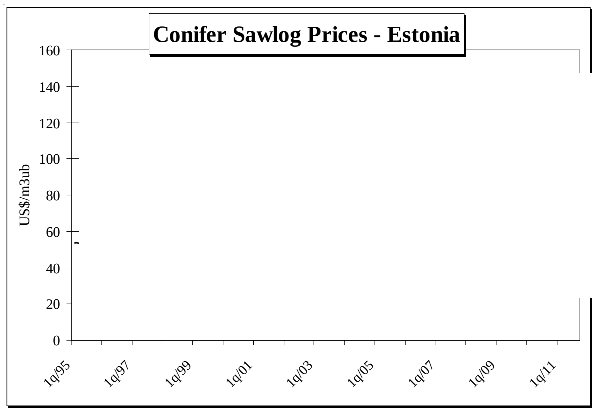
1q/2010
2q
3q
4q
1q/2011
2q



Exchange Rate (Euro/US$)

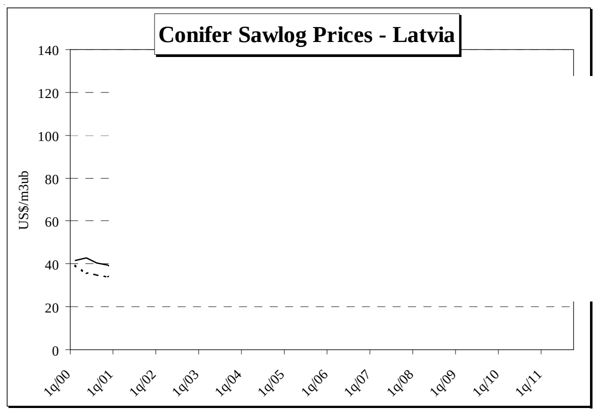
1q/2010	0.722
2q	0.785
3q	0.776
4q	0.736
1q/2011	0.732
2q	0.694
3q	0.707

Estonia, Latvia, Czech Republic & Poland - Sawlog Prices



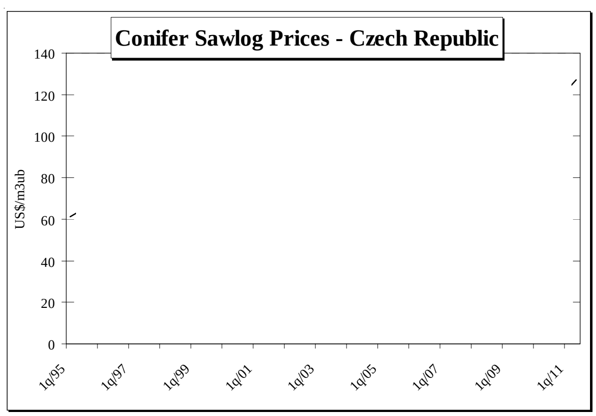
Conifer Sawlog Prices
(US$/m3)

	Spruce	Pine
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



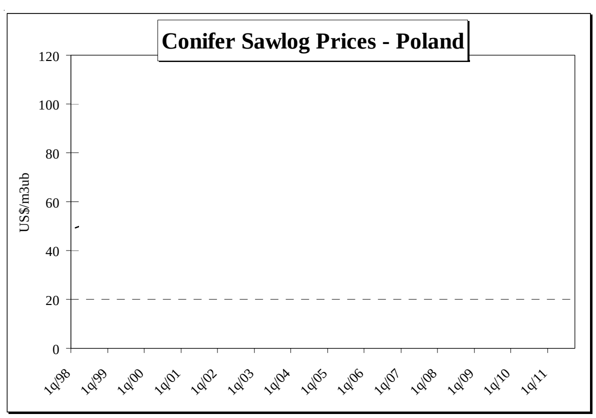
Conifer Sawlog Prices
(US$/m3)

	Spruce	Pine
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Conifer Sawlog Prices
(US$/m3)

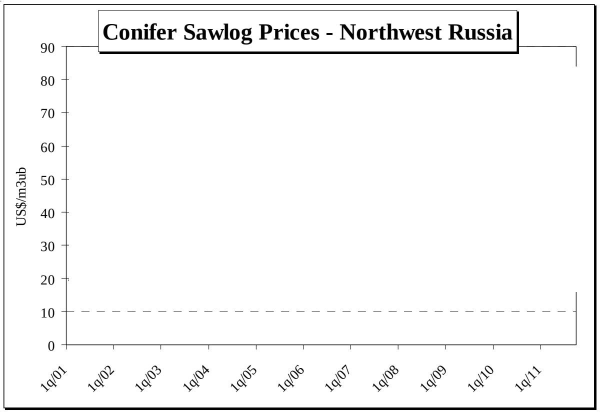
	Spruce
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Conifer Sawlog Prices
(US$/m3)

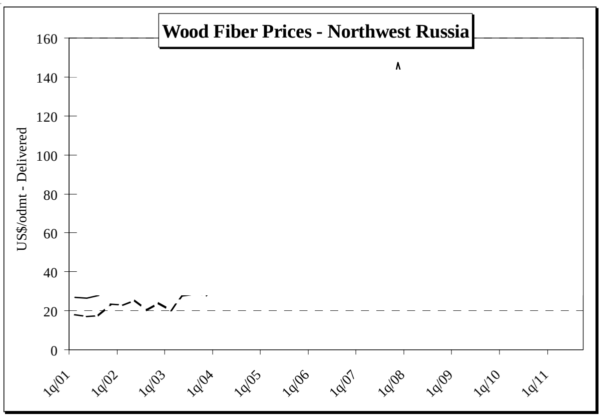
	Pine
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	

Northwest Russia - Sawlog and Pulpwood Prices



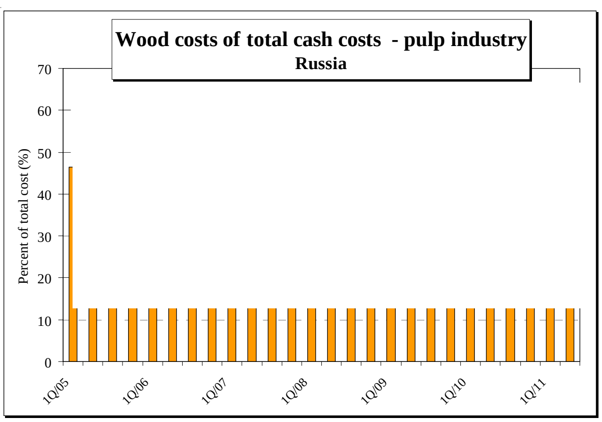
Conifer Sawlog Prices
(US$/m3)

	Pine	Spruce
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



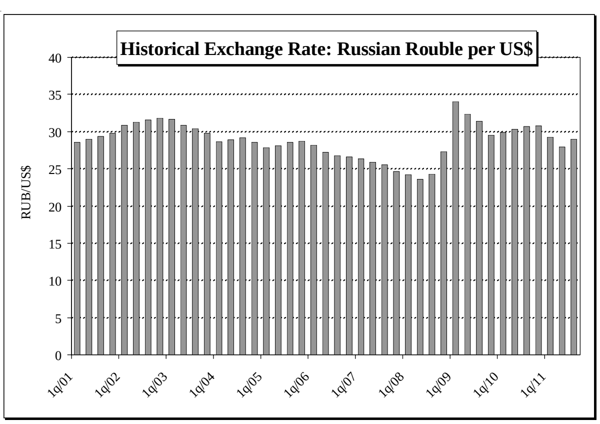
Pulplog Prices
(US$/odmt)

	Conifer	Non-Con
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



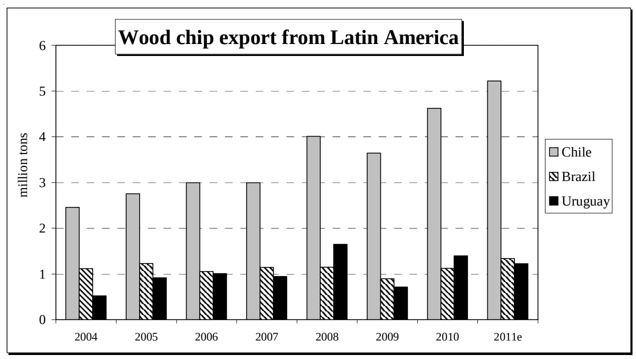
Exchange Rate (Roubles/US$)

1q/2010	29.91
2q	30.36
3q	30.71
4q	30.74
1q/2011	29.28
2q	27.94
3q	29.00

Sawlog and Pulpwood Markets 3Q/11 - Latin America

Wood chips exports from Latin America on track of reaching a new record in 2011

Wood chip exports from Latin America are on track to reach a record high of almost eight million tons in 2011. This would be an increase of seven percent from last year and of almost 60 percent higher from 2006 (see graph). Chile is by far the biggest exporter, accounting for two-thirds of the total shipments from the continent, while Brazil and Uruguay both account for about 16 percent each. In the 3Q/11, for the first time, Chile was the largest supplier of hardwood chips to Japan, pushing Australia down to the second place.



Historically, between 80-90 percent of the exported wood chips from Latin America have been destined for Japanese pulp mills but during the past few years there has been a diversification of consumers. Although shipments to Japan have gone up by over 30 percent from 2006, the share of total exports has declined and is currently around 70 percent.

The biggest change from five years ago is that pulp mills in Europe have been buying much more Eucalyptus chip, particularly from Chile and Uruguay. This year, total shipments to Europe may reach over 1.8 million tons, which is about the same as last year but more than a doubling from 2009. The three major importing countries in Europe are Spain, Portugal and Norway, In addition, there have also been a few shipments to Finnish pulp mills lately.

New destinations for Eucalyptus chips from Latin America the past five years include Morocco, Turkey and China. There are expectations that Chile will increase its shipments to China in the coming years because of higher demand from new pulp mills in the country.

Pulp exports from Brazil leveling off for the first time in many years

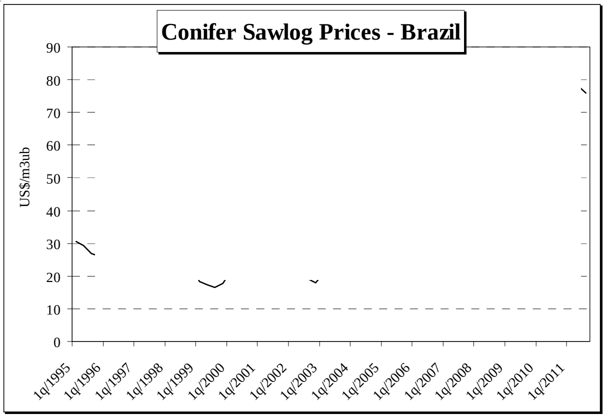
After many years of steady expansion of pulp capacity and higher exports, this year's exports appear to be leveling out with pulp export volumes practically the same the first nine months as last year. However, the total export revenues from pulp and paper from Brazil grew by 8.8 percent to $4.8 billion during the first eight months of 2011, according to Bracelpa. In the coming years, it can be expected that exports of Eucalyptus pulp will increase again. There are currently plans for another four to five new large-scale market pulp projects in Brazil, all Eucalyptus pulp, with start-ups targeted for 2012-14. A majority of the fiber for these plants will be sourced from company-owned plantations established over the past few years.

With only a small increase in demand for wood fiber this fall, prices for pulpwood have gone up just a few percent. In the 3Q/11, wood prices reached new record highs - the average pine pulplog price was US$116/odmt and Eucalyptus logs averaged US$129/odmt. Current price levels are about 20 percent higher than a year ago.

Record exports of chips push Eucalyptus pulplog prices upward in Chile

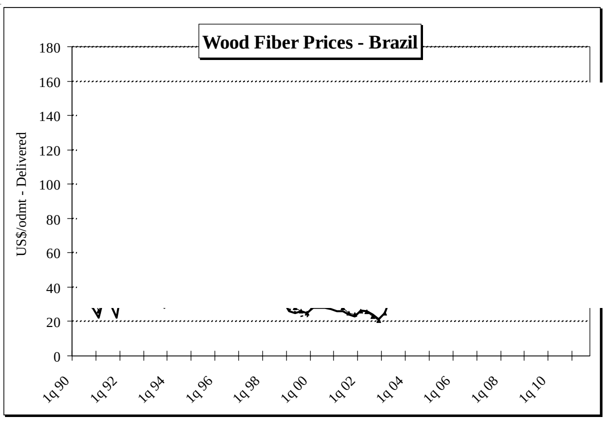
Chip exports from Chile are expected to reach a new record of around 4.6 million tons this year, or almost 30 percent higher than in 2009. The higher demand for Eucalyptus logs at chipping facilities at the ports has pushed pulplog prices upward the past year. In the 3Q/11, average hardwood log prices for the domestic market were around US$89/odmt, up from US$65/odmt a year ago. Although a strengthening Peso has contributed to higher costs in US dollar terms, log costs have also gone up over 25 percent in the local currency since last fall.

Brazil - Sawlog and Pulpwood Prices



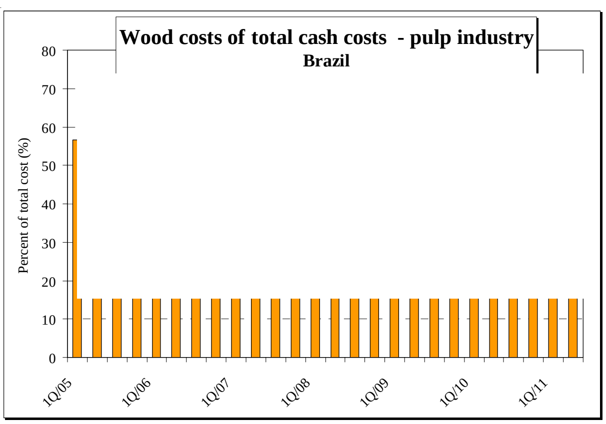
Conifer Sawlog Prices - Pine
(US$/m3)

1q/2010
2q
3q
4q
1q/2011
2q
3q



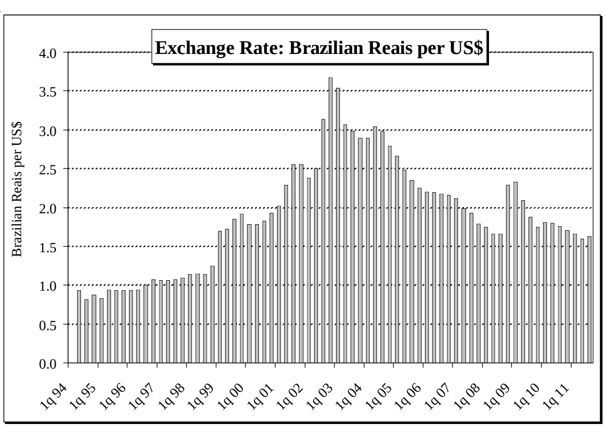
Pulpwood Prices - (US$/odmt)

	Chips	Roundwood	
	Con	Con	Non-c
1q/2010			
2q			
3q			
4q			
1q/2011			
2q			
3q			



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

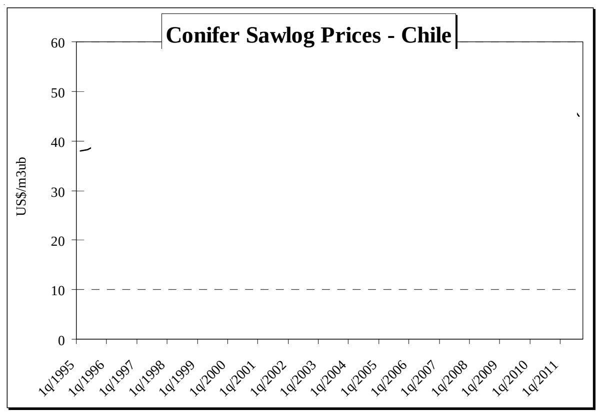
1q/2010
2q
3q
4q
1q
2q



Exchange Rate (Reais/US$)

1q/2010	1.809
2q	1.800
3q	1.759
4q	1.702
1q/2011	1.660
2q	1.593
3q	1.625

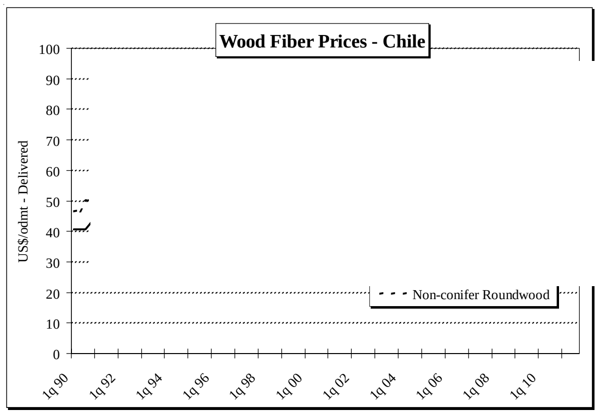
Chile - Sawlog and Pulpwood Prices



Conifer Sawlog Prices

(US$/m3)

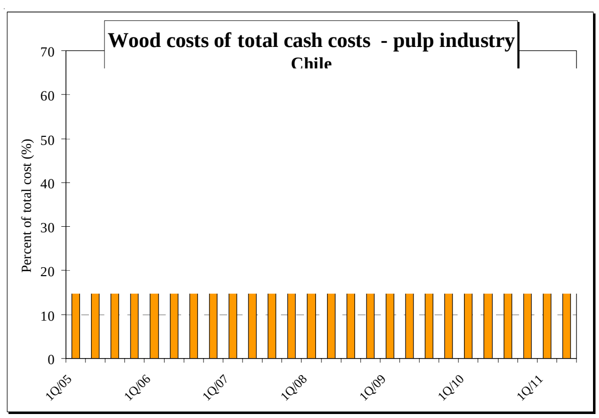
	Pine
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Pulplog Prices

(US$/odmt)

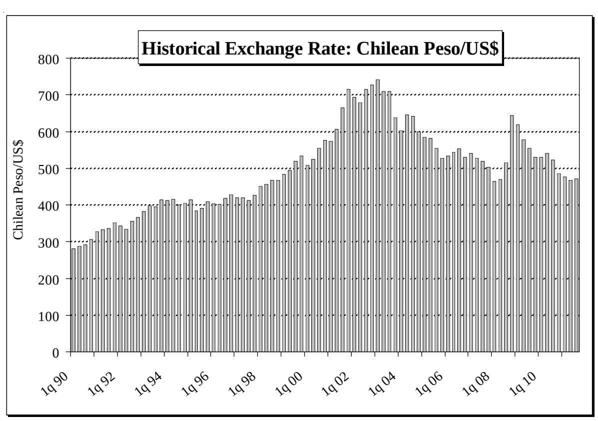
	Conifer	Non-Con
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)

(Source: Fisher International)

1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Pesos/US$)

1q/2010	529
2q	541
3q	522
4q	485
1q/2011	476
2q	468
3q	471

Sawlog and Pulpwood Markets 3Q/11 - Asia & Oceania

Log exports from New Zealand up by 25 percent

Log exports from New Zealand picked up in September after a few months of slower activity. The decline in shipments occurred mainly because of very high log inventories in China during the early summer months. Between May and June, exports from New Zealand to China were down by almost 50 percent, but have since picked up to levels close to early in the year.

Despite the slowdown in sales to the export market in June and July, this year will still be a record-year for the log exporters in the country. During the first eight months, total shipments were 25 percent higher than the same period last year (54 percent higher by value) and total exports for 2011 may reach as high as 13 million m3, which is more than a doubling from just three years ago. It is worth noting that practically half of the timber harvest in the 2Q was shipped overseas in log form. While log exports have increased substantially this year, lumber shipments have been lower than in 2010. This highlights the concern in the industry that domestic sawmills have difficulty competing for logs with the log export market, and may therefore have to reduce production and layoff employees.

The steady increase in log exports the past five years could very well continue the coming 15 years as the theoretical harvest level in New Zealand is set to double to 55 million m3 by 2024. Most observers in the industry agree that, for a number of reasons, this timber harvest scenario is less likely. Depending on market conditions, a more realistic level of annual timber harvests in 15 years would be between 30 and 40 million m3 annually. Even this lower harvest outlook alternative would increase available log supply from the current levels by over 50 percent.

Record imports of wood chip to China

With the lack of sufficient quality and quantity of domestic fiber supply, new pulp mills in China are looking to expand imports of wood chips from plantation-rich countries in Southeast Asia to meet their growing needs. In the 2Q/11, Vietnam, Thailand and Indonesia were the major suppliers to China, together accounting for almost 90 percent all imports. Chip imports in just the first eight months of 2011 already equal to total volume of imports in all of 2010. This upward trend is expected to continue in 2012 because the Chinese pulp industry is in expansion mode.

The average value for imported wood chips has steadily increased, reaching $168/ton in the 2Q/11, or about 18 percent higher than the same quarter last year. Vietnam is the lowest-cost supplier ($156/ton in the 2Q), while the cost for Eucalyptus chips from Australia were at the high-end, averaging US$218/ton in the 2Q.

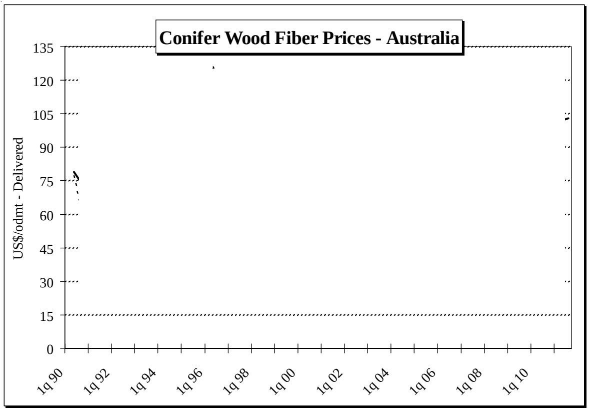
The forest plantation in Australia is falling

Only 23,500 hectares of new forest plantations were established in Australia in 2010, the smallest area since the early 1990’s. Because some older plantations where not replanted, the total plantation area fell slightly last year. There are currently about two million ha of forest plantations in the country, of which conifer species account for just over half of the area. Compared to ten years ago, the newly established plantations have fallen by over 80 percent. Looking ahead ten years, it is likely that the plantation area will continue to decline and that most of the reduction will be that of Eucalyptus plantations.

Softwood chip imports to Japan up, hardwood imports down in the 2Q

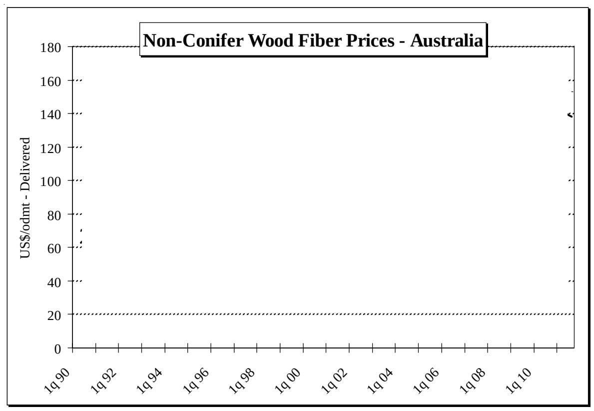
Softwood chip imports to Japan were up 25 percent quarter-to-quarter reaching 540,000 tons in the 2Q. The US, New Zealand and Australia all increased their shipments, while Canadian volumes were down 26 percent. The delivered cost in US dollar terms was also up, with an average of $218/ton compared to $186/ton in the 2Q/10. Hardwood chip imports to Japan were down four percent in the 2Q/11, with the biggest decline in Australian chips, which fell from 754,000 tons in the 1Q to 538,000 tons in the 2Q this year. In contrast, Chile has steadily increased shipments of Eucalyptus to Japan and was, for the first time, the largest chip supplier to Japanese pulp mills in the 2Q/11.

Australia - Pulpwood Prices



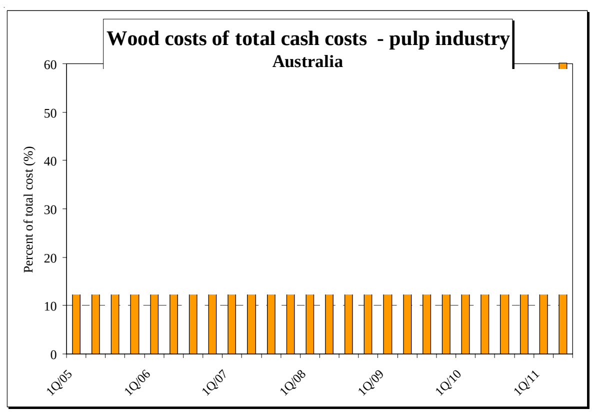
Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



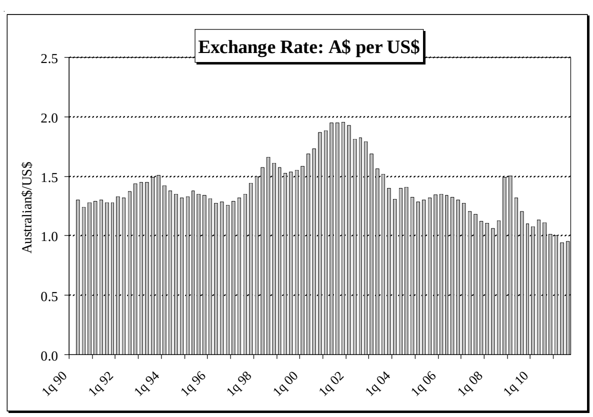
Non-Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

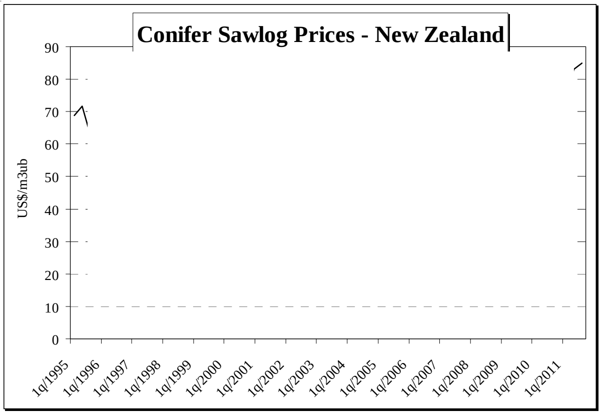
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Aus $/US$)

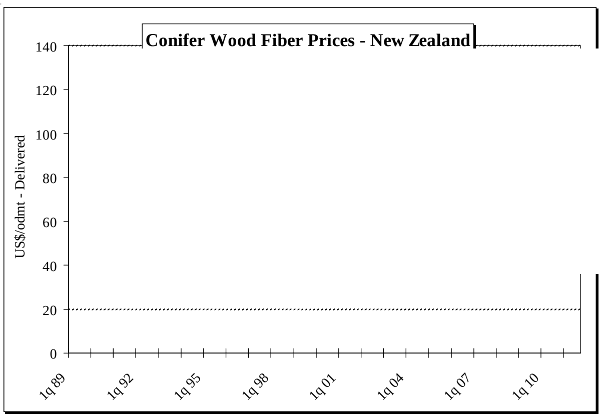
1q/2010	1.080
2q	1.133
3q	1.109
4q	1.013
1q/2011	1.000
2q	0.940
3q	0.951

New Zealand - Sawlog and Pulpwood Prices



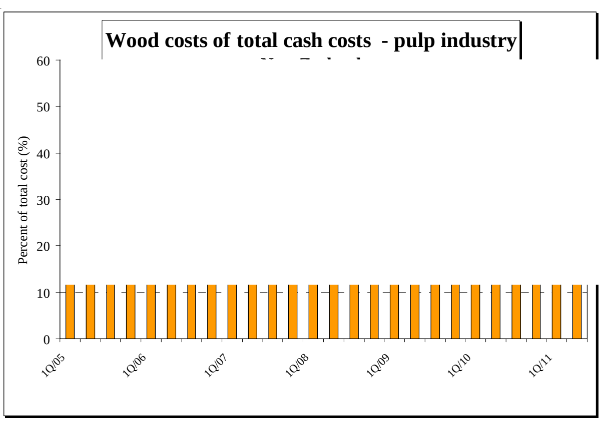
Conifer Sawlog Prices
(US$/m3)

	Pine
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



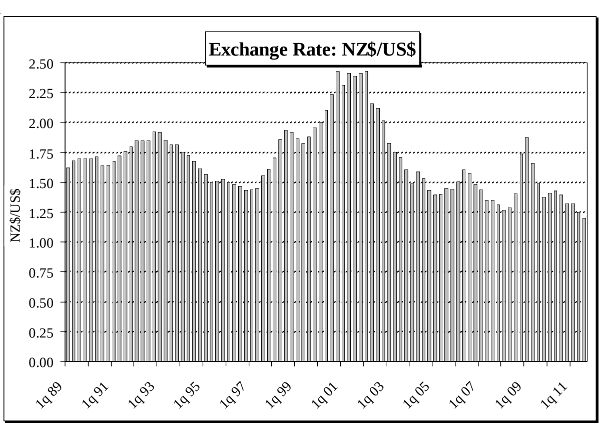
Conifer Pulpwood Prices
(US$/odmt)

	Chips	Rdwd
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

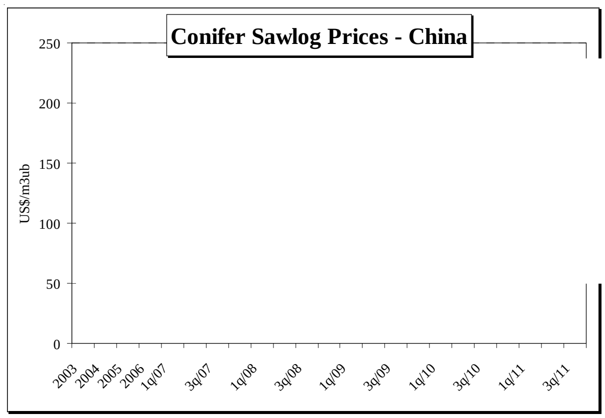
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (NZ $/US$)

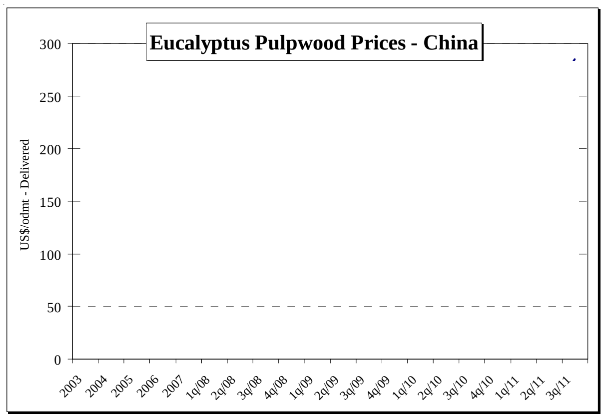
1q/2010	1.412
2q	1.427
3q	1.395
4q	1.320
1q/2011	1.323
2q	1.249
3q	1.200

China - Sawlog and Pulpwood Prices



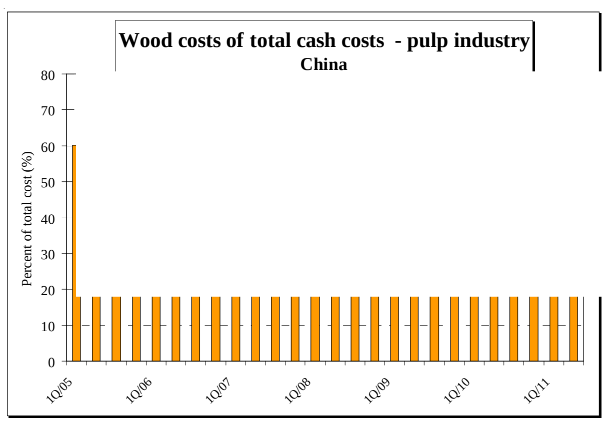
Conifer Sawlog Prices
(US$/m3)

	Chinese fir
1q/201(	
2q	
3q	
4q	
1q/2011	
2q	
3q	



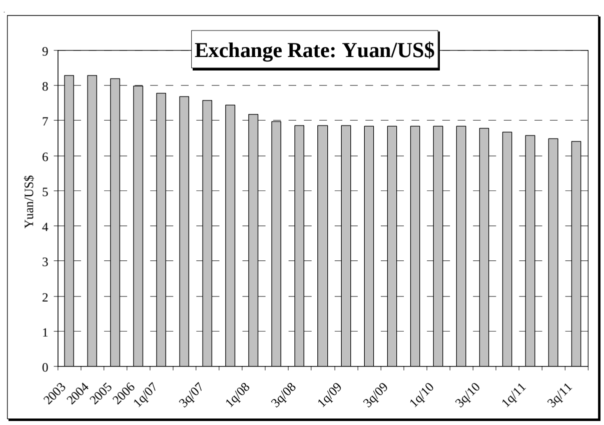
Non-Conifer Pulpwood Prices
(US$/odmt)

	Eucalyptus
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

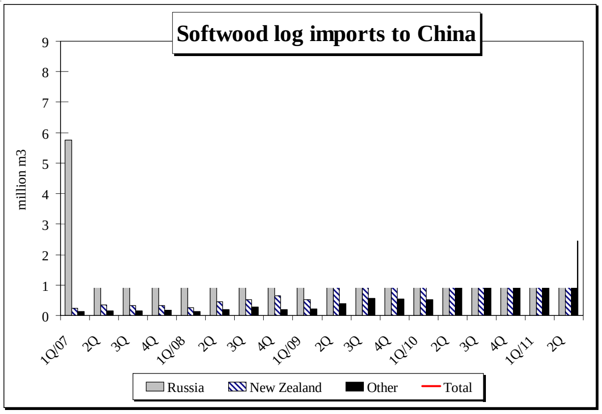
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Yuan/US$)

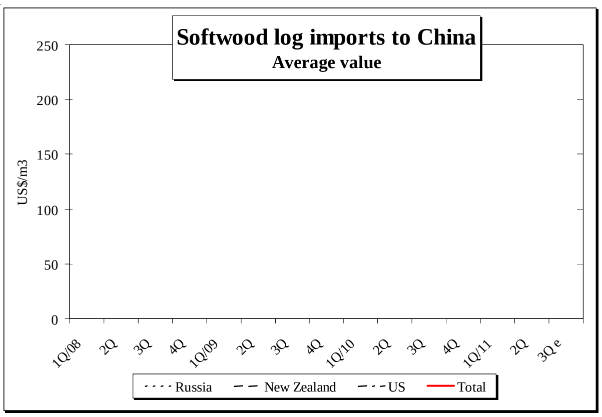
1q/2010	6.84
2q	6.83
3q	6.78
4q	6.67
1q/2011	6.57
2q	6.49
3q	6.40

China - Forest Products Imports



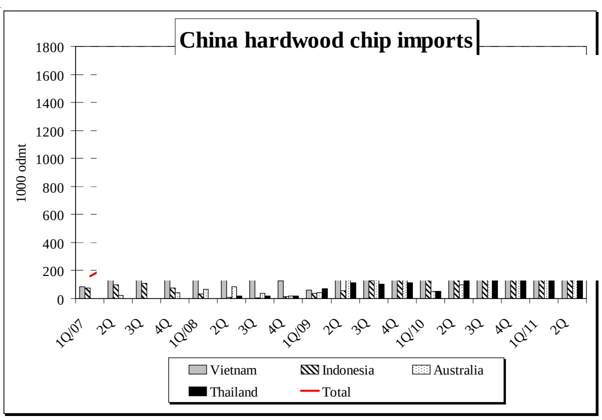
Conifer Sawlog Imports
(million m3)

Russia	
New Zealand	
US	
Canada	
Others	
Total	



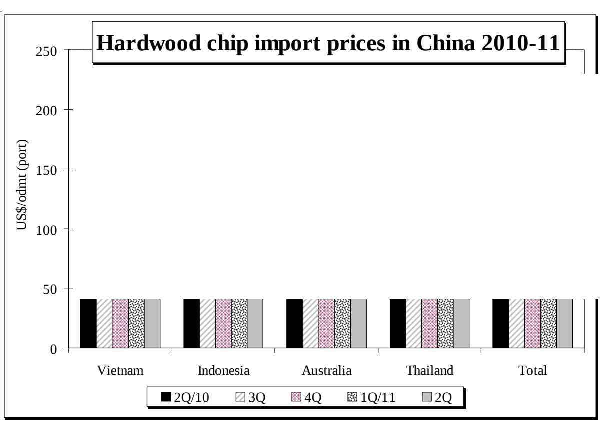
Conifer Sawlog Average Value
(US$/m3)

	Russia	NZ	US	Total
1q/2010				
2q				
3q				
4q				
1q/2011				
2q r				
3q est	[illegible]	[illegible]	[illegible]	[illegible]



Hardwood Chip Imports
(million odmt)

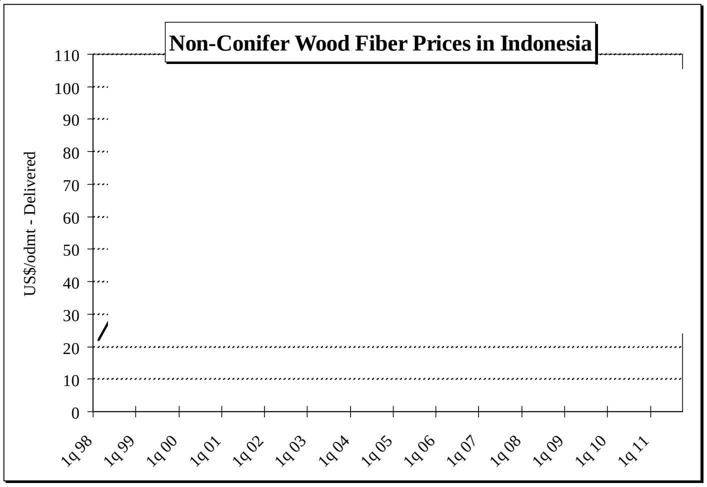
	2008	2009	2010	1-8/11
Vietnam				
Indonesia				
Australia				
Thailand				
Others				
Total				



Hardwood Chip Values
(US$/odmt)

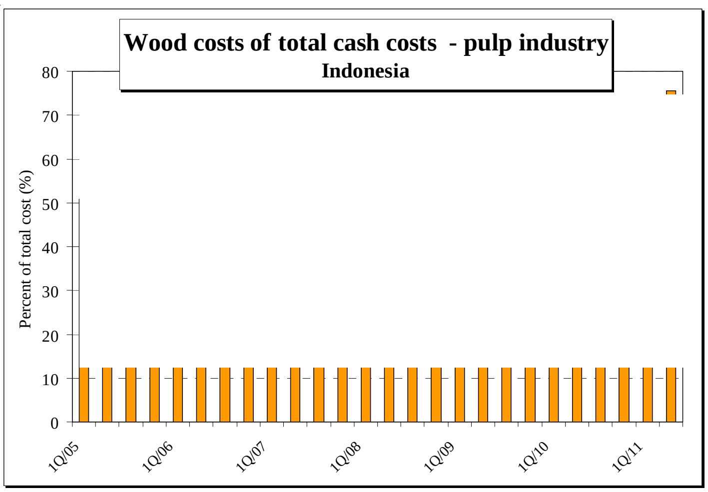
	2Q/11	Change (%) Q/Q	Change (%) Y/Y
Vietnam			
Indonesia			
Australia			
Thailand			
Total			

Indonesia - Pulpwood Prices



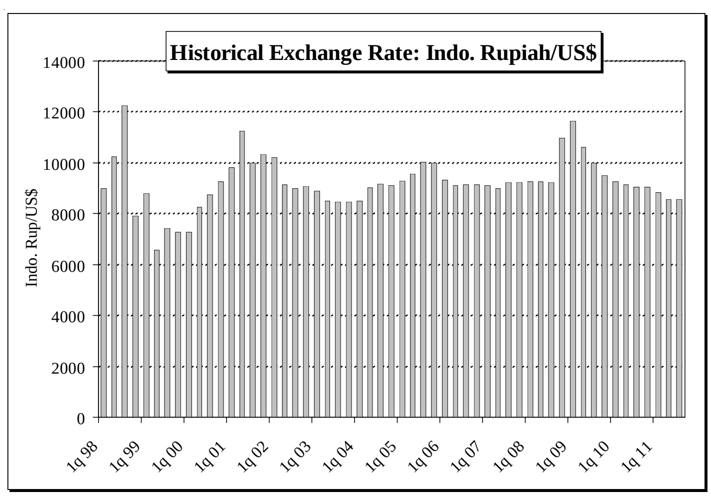
Non-Conifer Pulpwood Prices
(US$/odmt)

1q/2009	
2q	
3q	
4q	
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	
3q	



Wood costs of total cash costs - pulp (%)
(Source: Fisher International)

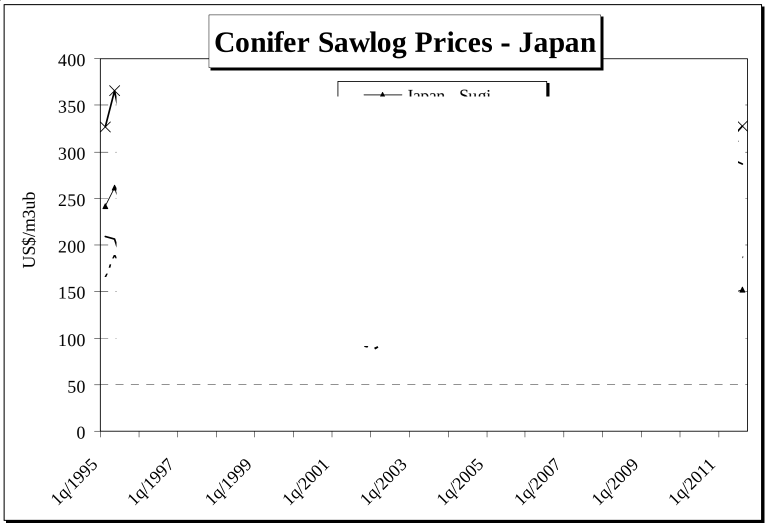
1q/2009	
2q	
3q	
4q	
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	



Exchange Rate (Rupiah/US$)

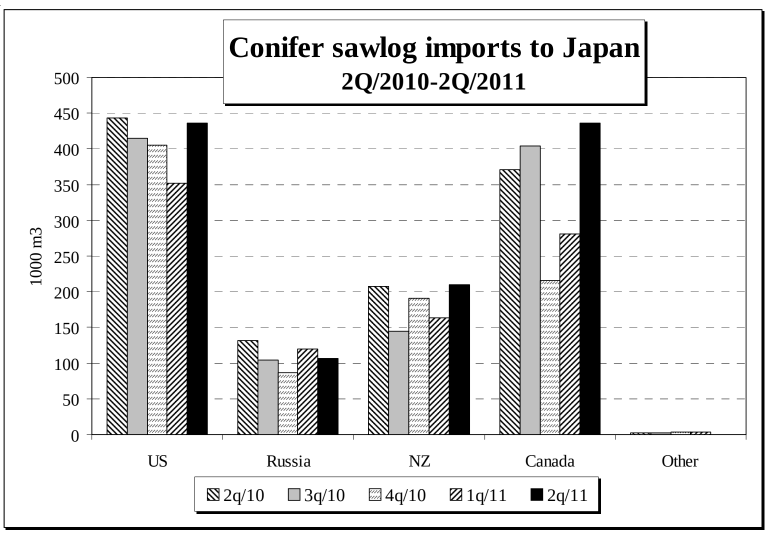
1q/2009	11637
2q	10621
3q	9993
4q	9492
1q/2010	9273
2q	9153
3q	9048
4q	9037
1q/2011	8832
2q	8559
3q	8552

Japan - Domestic and Imported Sawlog Prices



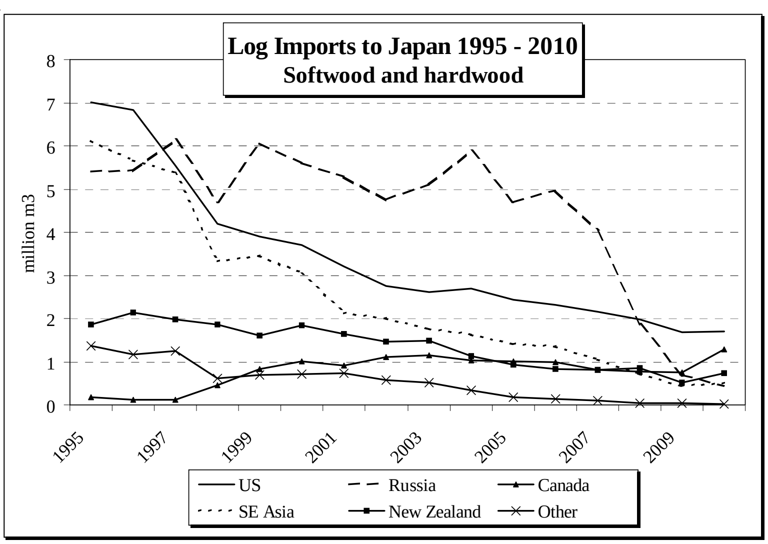
Conifer Sawlog Prices
(US$/m3)

	Sugi Japan	D-f US	Pine Russia	Pine Japan
1q/2010				
2q				
3q				
4q				
1q/2011				
2q				
3q				



Conifer Sawlog Imports
(1000 m3)

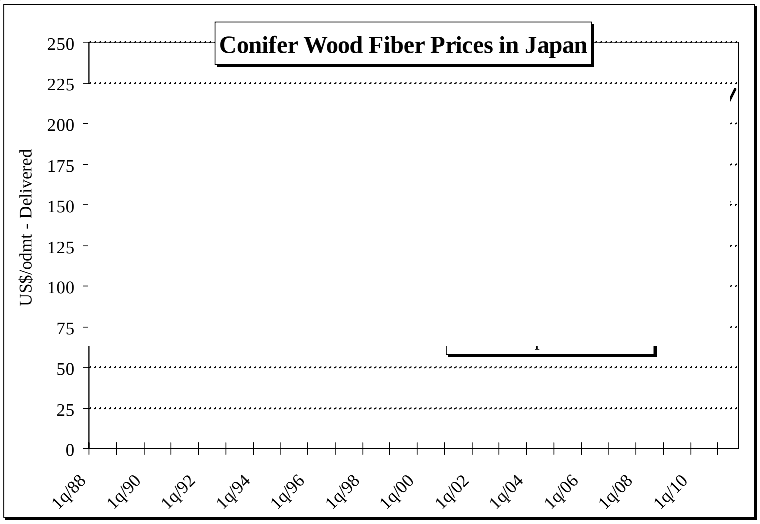
	2008	2009	2010
US	1937	1639	1670
Canada	773	759	1279
Russia	1780	666	437
New Zealand	840	521	737
Others	32	16	10
Total	**5362**	**3601**	**4139**



Sawlog imports, total
(million m3)

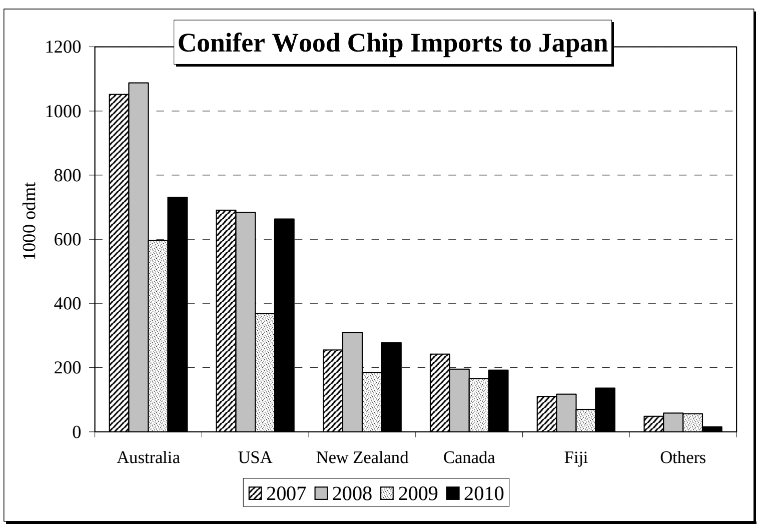
2000	15.95
2001	13.91
2002	12.66
2003	11.65
2004	12.68
2005	10.65
2006	10.58
2007	8.97
2008	6.22
2009	4.13
2010	4.67

Japan - Conifer Pulpwood Prices



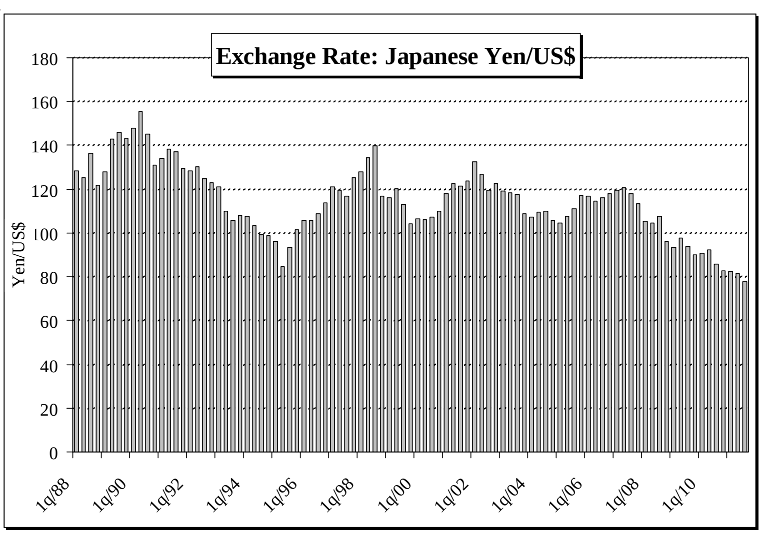
Conifer Chip Prices
(US$/odmt)

	Domestic	Imported
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Conifer Chip Imports
(1000 odmt)

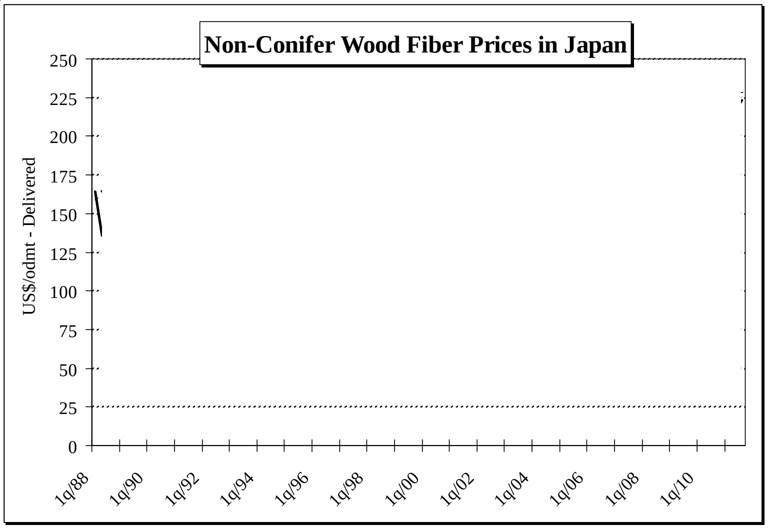
	2008	2009	2010
Australia	1088	560	731
USA	684	369	660
New Zealand	310	185	280
Canada	195	166	192
Fiji	117	70	136
Others	58	56	18
Total	**2452**	**1406**	**2017**



Exchange Rate (Yen/US$)

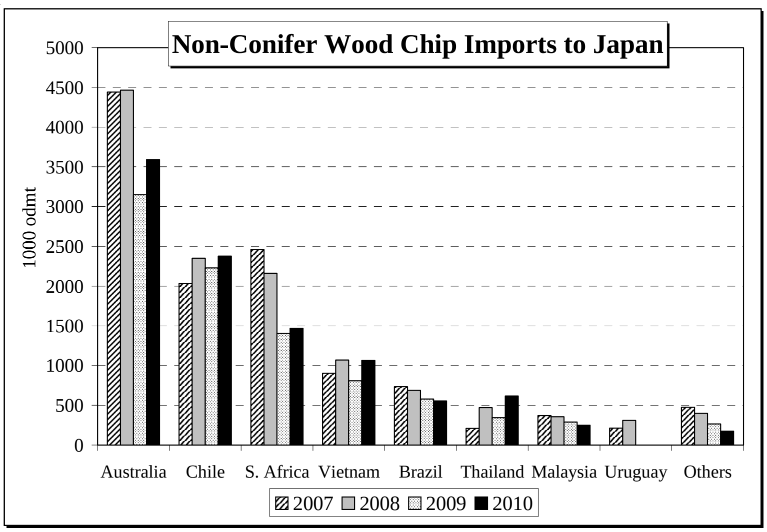
1q/2009	93.51
2q	97.49
3q	93.69
4q	89.82
1q/2010	90.75
2q	92.17
3q	85.92
4q	82.58
1q/2011	82.25
2q	81.56
3q	77.77

Japan - Non-Conifer Pulpwood Prices



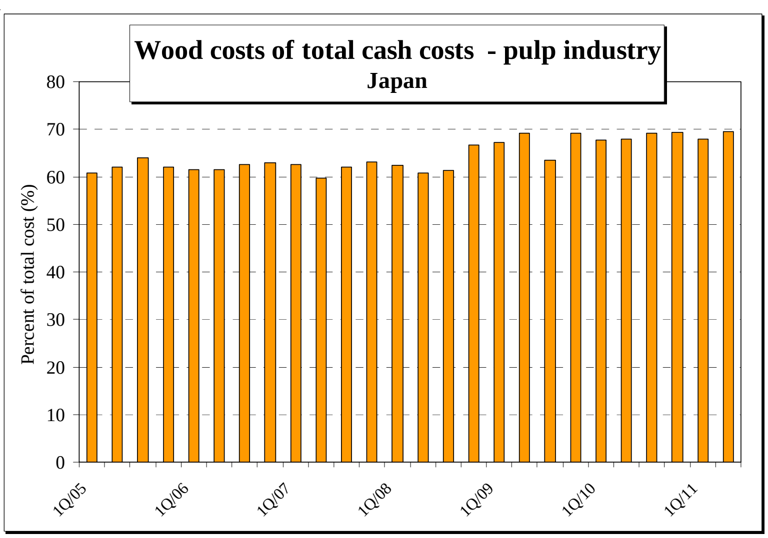
Non-Conifer Chip Prices
(US$/odmt)

	Domestic	Imported
1q/2010		
2q		
3q		
4q		
1q/2011		
2q		
3q		



Non-Conifer Chip Imports
(1000 odmt)

	2008	2009	2010
Australia	4464	3148	3590
Chile	2351	2229	2378
South Africa	2161	1404	1468
Vietnam	1071	809	1063
Brazil	689	581	556
Thailand	472	344	617
Malaysia	357	291	251
Others	708	265	177
Total	**12273**	**9071**	**10100**



Wood costs of total cash costs (%)
(Source: Fisher International)

1q/2009	
2q	
3q	
4q	
1q/2010	
2q	
3q	
4q	
1q/2011	
2q	

Woodchip import prices to Japan - 2010/2011

(US$ per odmt, CIF)

Conifer wood chips (US$/odmt)

	Australia	USA	Canada	NZ	Fiji	**Total**
3Q/10						
4Q/10						
1Q/11						
2Q/11						
3Q/11e						
Chg Y/Y (%)						

Non-conifer wood chips (US$/odmt)

	Australia	S. Africa	Chile	Vietnam	Brazil	Malaysia	Thailand	**Total**
3Q/10								
4Q/10								
1Q/11								
2Q/11								
3Q/11 e								
Chg Y/Y (%)								

Pacific Rim Wood Fiber Trade - 2Q/2011

(1000 odmt)

Source	**Japan Softwood**	**Japan Hardwood**	**Taiwan Hardwood**	**S. Korea Hardwood**	**China Softwood**	**China Hardwood**	**Total**	**Change (%) Q/Q**	**Change (%) Y/Y**
Vietnam								49	48
Australia								-23	-28
Chile								10	43
Thailand								32	64
S. Africa								-12	-35
Indonesia								-13	21
USA								93	14
Brazil								11	23
New Zealand								99	71
Malaysia								-27	-15
Canada								-26	-4
Fiji								-3	-33
Other								-18	-46
TOTAL	**540**	**2487**	**232**	**146**	**50**	**1667**	**5122**	11	12
Change Q/Q	25	-4	-12	29	-7	45	11		
Change Y/Y	4	-4	-19	0	67	63	12		

Sources: Japan Pulp & Paper Association and Customs data

Major Pulp Producing Countries

Top 20 wood-based pulp producing countries in 2009 (million tons):

1.	**USA**	**47.7**	**6.**	**Japan**	**8.5**	**11.**	**Germany**	**2.5**	16.	South Africa	1.7
2.	**Canada**	**17.2**	**7.**	**China**	**8.0**	12.	Portugal	2.5	**17.**	**Austria**	**1.5**
3.	**Brazil**	**13.3**	**8.**	**Russia**	**6.8**	**13.**	**France**	**1.7**	**18.**	**NZ**	**1.5**
4.	**Sweden**	**11.5**	**9.**	**Chile**	**5.2**	**14.**	**Norway**	**1.7**	19.	India	1.5
5.	**Finland**	**8.7**	**10.**	**Indonesia**	**4.9**	**15.**	**Spain**	**1.7**	**20.**	**Australia**	**1.2**

*Note. Countries listed in **bold** are tracked by the Wood Resource Quarterly and together account for an estimated **87%** of global wood-based pulp production.*

Major Conifer Sawnwood Producing Countries

Top 20 conifer sawnwood producing countries in 2009 (million m3):

1.	**USA**	**39.6**	**6.**	**China**	**13.6**	**11.**	**Finland**	**8.0**	16.	Turkey	3.8
2.	**Canada**	**32.0**	7.	India	9.9e	12.	France	7.7	17.	Australia	3.7
3.	**Germany**	**19.7**	**8.**	**Brazil**	**9.5**	**13.**	**Chile**	**5.7**	**18.**	**NZ**	**3.6**
4.	**Russia**	**17.1**	**9.**	**Japan**	**9.3**	**14.**	**Czech R.**	**4.4**	**19.**	**Poland**	**2.9**
5.	**Sweden**	**16.1**	**10.**	**Austria**	**8.3**	15.	S. Korea	4.2	20.	U.K.	2.8

*Note. Countries listed in **bold** are tracked by the Wood Resource Quarterly and together account for an estimated **75%** of global conifer sawnwood production.*

Estimated wood fiber consumption by WRQ regions in 2009
(1000 odmt)

Region	Conifer		Non-Conifer		Total
	Chips	Rdwd	Chips	Rdwd	
US, South					
US, Northwest					
Canada, East					
Canada, West					
Norway					
Sweden					
Finland					
France					
Germany					
Spain					
Russia, NW					
Brazil					
Chile					
New Zealand					
Australia					
Japan					
Indonesia					
Total					
Total %					

Principal Wood Fiber Species and Average Regional Densities

(kg per m3 oven dry wood)

Region		Principal Species	Density
U.S., South	Conifer	Pinus taeda, elliottii	509
	Non-Con	Quercus, Acer, Nyssa, Liriodendron	500
U.S., Northwest	Conifer	Pseudotsuga M., Tsuga spp.	435
	Non-Con	Alnus spp.	370
Canada, East	Conifer	Picea spp., Abies spp., Pinus banksiana	400
	Non-Con	Betula spp., Populus spp.	500
Canada, West	Conifer	Pseudotsuga M., Tsuga spp., Abies spp., Pinus contorta, Picea spp.	395
Norway	Conifer	Picea spp., Pinus silvestris	385
Sweden	Conifer	Picea spp., Pinus silvestris	385
	Non-Con	Betula spp.	510
Finland	Conifer	Picea spp., Pinus silvestris	385
	Non-Con	Betula spp.	510
France	Conifer	Picea spp., Pinus spp., Abies spp., Pseudotsuga M.	410
	Non-Con	Quercus spp., Fagus spp.	475
Germany	Conifer	Picea spp., Abies spp., Larix spp., Pinus silvestris	373
	Non-Con	Fagus spp.	510
Spain	Conifer	Pinus pinaster., Pseudotsuga M.	435
	Non-Con	Eucalyptus globulus	600
Russia, NW	Conifer	Picea spp., Pinus silvestris	385
	Non-Con	Betula spp., Populus tremula	500
Brazil	Conifer	Pinus taeda, elliottii, Araucaria	500
	Non-Con	Eucalyptus grandis & clones, Acacia spp.	495
Chile	Conifer	Pinus radiata	400
	Non-Con	Eucalyptus globulus, nitens	600
New Zealand	Conifer	Pinus radiata	400
Australia	Conifer	Pinus radiata, pinaster, Pseudotsuga M.	420
	Non-Con	Eucalyptus spp.	550
Japan	Conifer	Mixed	455
	Non-Con	Mixed	595
Indonesia	Non-Con	MTH, Acacia spp., Eucalyptus spp.	500

Featured articles in the Wood Resource Quarterly

Biomass Market Update - North America	Vol 20 (2007), No. 1
Global Sawlog Market Update	Vol 20 (2007), No. 1
Forest Resource and Industry Profile - Germany	Vol 20 (2007), No. 2
Wood raw-material markets in Europe 2006 - 2007	Vol 20 (2007), No. 3
The global pulp industry is on a roll: an industry sector update	Vol 20 (2007), No. 4
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Vietnam - The fourth largest hardwood chip exporter in the world	Vol 21 (2008), No. 3
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Dramatic decline in Russian logs imported to Japan in 2008	Vol 22 (2009), No. 1
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Biomass markets in the US	Vol 23 (2010), No. 1
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Global wood pulp production 2005-2015	Vol 23 (2010), No. 3
Imports of forest products to China in 2010	Vol 23 (2010), No. 4

Partial List of Conference lectures given by WRI staff

(Country where presentation was given is noted in parentheses)

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Competition from **Southern Hemisphere** Plantation Forests *(USA)*
China's Future Role in the **Pacific Rim Trade** of Forest Products *(USA)*
Outlook and Price Trends for Pulpwood and Wood Chips *(Uruguay)*
Update of the International **Wood Chip** Market *(USA)*

The Importance of Russian Wood Products in **Asian markets** *(China)*
European Lumber Exports to the US *(Canada)*
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Wood raw-material markets in **Europe**, **Russia** and **North America** *(Switzerland)*
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