4 Wood raw material markets, 2011-2012

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Highlights

- Consumption of industrial roundwood in the UNECE region was up for the second year in a row in 2011 but was still 14% lower than before the global financial crisis of 2008.
- The biggest increase in log consumption in 2011 was in the CIS subregion, where demand for both softwood and hardwood industrial roundwood was up by 14% because of higher production at sawmills and plywood plants in the Russian Federation and Ukraine.
- Higher demand for logs by the sawmills within the UNECE region and a substantial increase in the importation of logs into China from North America and the Russian Federation contributed to higher harvests in the UNECE region in 2011.
- Removals of industrial roundwood increased by 2.4%, reaching 970 million m³ in 2011 in the UNECE region, with harvests of hardwood logs going up slightly more than softwood logs. Since 2009, the total industrial roundwood harvests have gone up by 12%, a substantial recovery after the more than 30% plunge between 2007 and 2009.
- The removal of fuelwood was estimated to be just over 200 million m³, constituting 18% of total roundwood removals in 2011.
- The UNECE region's trade of industrial roundwood in 2011 continued its upward trend from the previous year, with Europe and North America expanding exports by 12% and 25%, respectively, while CIS exports declined by 2%.
- Prices for softwood sawlogs fell in virtually all major markets worldwide in late 2011 and early 2012. The Global Sawlog Price Index (GSPI) fell 9% between the first quarters of 2011 and 2012.
- The weakening pulp markets and lower prices for market pulp resulted in lower wood chip and pulp log prices in early 2012. As a result, the global wood fibre price indices declined to their lowest levels in over 12 months.

4.1 Introduction

Harvests of industrial roundwood increased for the third straight year in the UNECE region in 2011 to slightly less than one billion m³. This is the highest harvest level in three years. Since 2009, the total timber harvests in the three subregions have gone up by 12%, a substantial recovery after the more than 30% plunge between 2007 and 2009.

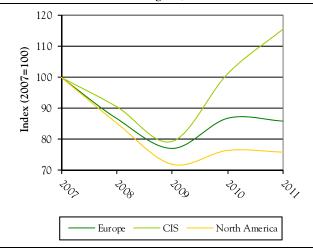
There were three main reasons for the high harvest: increased exports of logs from North America to China, expanded manufacturing of wood-based panels in the Russian Federation, and higher sawnwood production in North America and Europe.

Consumption of industrial roundwood was up by about 2% in the UNECE region in 2011 from 2010, but was still 14% below the level of 2007. Between 2010 and 2011, consumption in the CIS region increased (14.3%), while log usage in Europe fell slightly (-0.2%). The higher log demand was the result of higher sawnwood production (+5.4%) and plywood (+3.7%). Wood-based pulp production fell slightly, which also reduced the demand for pulplogs.

Consumption of softwood industrial roundwood in the UNECE region was up slightly (2.1%) in 2011 over 2010 and was 13% higher than in 2009. This was still 15% lower than in 2007 (graph 4.1.1). The largest increase occurred in the CIS region. Consumption was slightly lower in Europe in 2011 and practically unchanged in North America. Hardwood log consumption was up 4%, mainly the result of a 14% rise in demand in the CIS (graph 4.1.2).

GRAPH 4.1.1

Consumption of softwood industrial roundwood in three
UNECE subregions, 2007-2011

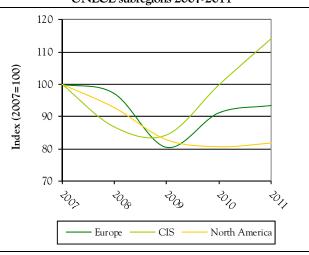


Note: Industrial roundwood excludes woodfuel. **Source:** UNECE/FAO TIMBER database, 2012.

GRAPH 4.1.2

Consumption of hardwood industrial roundwood in three

UNECE subregions 2007-2011



Note: Industrial roundwood excludes woodfuel. **Source:** UNECE/FAO TIMBER database, 2012.

All three UNECE subregions have seen higher harvests and increasing demand for wood raw-material over past three years as the economies in many countries have begun to emerge from the recession. Removals in North America, which account for 44% of the UNECE region's total, were up 0.8% from 2010; in the CIS and Europe, removals were up 11.6% and 0.4%, respectively.

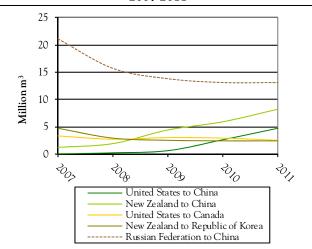
Trade of logs continued to rise in 2011, with Europe and North America exporting 12% and 25% more, respectively, while CIS exports fell by 2% from 2010. The most recent trade information from UN Comtrade indicates increases in all major trade flows in 2010 after the substantial declines during 2008 and 2009. China has increased imports from the United States and New Zealand. At the same time, imports from the Russian Federation have declined (graph 4.1.3)

Net exports of logs from the UNECE region were up 28% from 2010 to 2011, practically all as a result of China's shortage of domestic forest resources. China's sharp increase in demand for forest products has forced their forest industry to increasingly rely on imported wood. Log imports in 2011 were 39 million m³, up from 25 million m³ in 2009, with the Russian Federation, New Zealand, the US and Canada being the major suppliers.

The slowdown in the Chinese economy in 2012 and subsequent reduced demand for imported wood-raw material, sawnwood, pulp and paper, is likely to negatively affect forest industry production and harvest levels in a number of UNECE countries this year. Exports of logs and sawnwood from western North America and eastern Russia will be more affected than exports from Europe. Weaker markets for sawnwood and pulp in both

North America and Europe may also have a negative impact on timber harvest levels in 2012.

 $\label{eq:GRAPH 4.1.3}$ Top five global trade flows of softwood roundwood by volume, $2007\mbox{-}2011$



Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

Roughly 210 million m³ of roundwood, or about 17% of total removals, were estimated to be used as fuel in the UNECE in 2011. However, the data for volumes removed from forests for fuel are difficult to track year to year, as few countries have consistent methods of collecting annual data for this increasingly important end-use. Therefore, in this chapter we will focus mainly on the production, consumption and trade of industrial roundwood rather than on that of total roundwood (which would include fuelwood).

4.2 Europe subregion

4.2.1 Industrial roundwood markets

Timber harvests in Europe in 2011, at approximately 375 million m³, were practically unchanged from 2010, with softwood species (predominantly sawlogs) accounting for 77% and the balance being hardwood species (predominantly pulplogs). Total removals, including fuelwood, were almost 483 million m³ (table 4.2.1).

The largest increases in volume were in Latvia (+1.6 million m³), Lithuania (+1.1 million m³) and Turkey (+0.7 million m³), while harvests were down the most in Italy (-985,000 m³), Spain (-680,000 m³) and the Czech Republic (-590,000 m³).

Consumption of logs by the forest industry has not yet recovered from the decline following the global financial crisis in 2008. Levels were 12% lower in 2011 than in

2007. The biggest declines came in the Czech Republic, Finland, Spain and Italy.

TABLE 4.2.1 Roundwood balance in Europe, 2010-2011 $(1.000 m^3)$

	(-,,		
	2010	2011	Change %
Europe			
Removals	476 678	482 593	1.2
Imports	57 109	60 213	5.4
Exports	45 618	50 515	10.7
Net trade	-11 491	-9 698	
Apparent consumption	488 169	492 291	0.8
of which: EU27			
Removals	423 539	428 810	1.2
Imports	53 658	56 638	5.6
Exports	42 248	46 943	11.1
Net trade	-11 410	-9 696	
Apparent consumption	434 949	438 506	0.8

Note: Figures include industrial roundwood and fuelwood.

Source: UNECE/FAO TIMBER database, 2012.

Industrial roundwood harvesting in Finland was down in 2011, with sawlog and pulpwood purchases from private forests declining from 2010. However, 2010 had been an exceptional year in terms of large volumes of storm-damaged industrial roundwood being added to the regular harvesting programme. Finnish removals of industrial roundwood were 46 million m³, up from 36.7 million m³ in 2009.

In late December 2011, a severe storm hit southeastern Finland and central Sweden and to a lesser degree central Norway, resulting in large areas of fallen trees. In Finland, it was estimated that 3.5-4.0 million m³ of timber (mostly private) were damaged, and in Sweden between 4 and 5 million m³. To prevent insect infestation of the dying trees, many landowners prioritized cutting the storm-damaged timber early in 2012. It is expected that most of the timber will have been removed by the summer, so there should not be any major impact on log prices.

Poland is Europe's fourth largest producer of roundwood. The government's Forest Office added 4% more timber to the market in 2011 to meet demand from the forest industry, which has been struggling to supply its plants with raw material. As a result, timber harvests in Poland increased by about 5% between 2009 and 2011. Approximately 85% of the logs are supplied from State forests giving the government almost exclusive control over the supply of raw materials to manufacturers and a strong influence over pricing.

4.2.2 Trade of industrial roundwood

Despite the worldwide slowdown in log demand towards the end of 2011, global trade of softwood logs in 2011 was still the highest since 2007. Total trade was estimated to be close to 95 million m³, which was nine million m³ higher than in 2010 and as much as 24 million m³ more than the bottom year of 2009. New Zealand, the US, the Czech Republic, Canada and Australia have seen the biggest increases in softwood log exports over the past few years. The Russian Federation is still the largest exporting country, but its share of total exports has diminished.



Source: UNECE/FAO, 2012.

Europe continued to be a net importer of industrial roundwood in 2011, with imports 10 million m³ more than exports. In order of rank, Austria, Germany, Sweden, Finland and Belgium were the major importing countries.

Industrial roundwood exports from Europe totalled 45 million m³ in 2011, which was 12% more than 2010 and as much as 52% more than in 2009. The biggest increases, by volume, occurred in the Czech Republic, Estonia, France, Poland, Spain and Lithuania. Practically no roundwood is exported outside Europe.

Trade of industrial roundwood in Europe fell in early 2012 because of reduced demand for sawlogs in most key sawnwood-producing countries. This downturn comes after four years of consecutive increases in traded volumes. Of the largest softwood-importing countries, Germany, Austria, Spain and France reduced imports the most in early 2012, as compared to early 2011.

France has suffered the biggest decline in log exports so far this year because much of the damaged standing timber from the hurricane that hit its west coast in 2009 has already been harvested and shipped to domestic sawmills, and to mills in neighbouring Spain and Belgium.

4.2.3 The pulp industry in Europe continues to rely on 20% imported fibre

Wood fibre consumption by the European pulp industry remained practically unchanged (+0.9%) in 2011 from the previous year, according to the industry organization (CEPI, 2012). The total virgin fibre consumption was almost 150 million m³, the highest level since 2008. The split between softwood and hardwood fibre was surprisingly stable from 2002 to 2011, with softwood chips and softwood logs accounting for between 72% and 74% of all fibre consumed.

Some pulp mills in continental Europe had the opportunity to use more of the less costly sawmill coproducts rather than roundwood during 2011 because sawnwood production was slightly higher. Total chip use was 700,000 m³ higher, at 35.9 million m³. By far the largest consumers of co-products are the pulp mills of Finland and Sweden.

All pulp-producing countries in Europe rely on imported fibre. Approximately 20% of fibre consumed in Europe was imported, mostly from neighbouring countries but also from Latin America. This share has been fairly stable over the past 10 years. The largest importers last year were (in order of rank): Finland, Sweden, Austria, Belgium and Portugal.

4.3 CIS subregion

4.3.1 Industrial roundwood markets

Belarus, the Russian Federation and Ukraine are the CIS subregion's major producers and consumers of roundwood. They also export a fairly large percentage of the harvest volume in log form to neighbouring countries with a more developed processing industry. The CIS subregion exported almost 15% of its industrial timber harvest in 2011. Ukraine shipped as much as 38% of its industrial roundwood volume to sawmills in Turkey and Romania.

Total removals of industrial roundwood in the CIS subregion were up 12% from 2010 to 169 million m³ in 2011: removals, including fuelwood, were almost 223 million m³ (table 4.3.1). Softwood harvests have gone up more than hardwood harvest.

The Russian Federation is the country in the CIS which has increased harvests most in the past few years. In 2011, its industrial roundwood removals were 153 million m³, with 87% consumed domestically. The biggest expansion of the Russian forest industry from 2010 to 2011, and also the largest increase in timber harvesting, occurred in the Russian Federation's southwest region. But there were also investments in sawmilling and pulping capacity in other parts of the country, including Siberia and the northwest.

The accuracy of Russian harvest data remains uncertain, as the Russian Government acknowledges "undocumented" timber harvest is occurring. In 2009, the Head of the Federal Forestry Agency reported that illegal logging may well lie in the range of 25-30 million m³ annually.

TABLE 4.3.1 Roundwood balance in the CIS, 2010-2011 $(1,000 m^3)$

	2010	2011	Change %
Removals	203 268	226 633	11.5
Imports	487	491	0.8
Exports	27 076	27 081	0.0
Net trade	26 589	26 591	
Apparent consumption	176 679	200 042	13.2

Note: Figures include industrial roundwood and fuelwood.

Source: UNECE/FAO TIMBER database, 2012.

4.3.2 Industrial roundwood exports

Log exports have fallen sharply since 2008, when the Russian Federation introduced a log export tariff of 25%. Despite having suffered a sharp decline in global market share, the Russian Federation is still the world's largest exporter of softwood logs. In 2011, it exported 21 million m³ of industrial roundwood, down from 49 million m³ in 2006 – the bulk of the trade being in softwood sawlogs to China and hardwood pulplogs to Finland. During the first half of 2012, export volumes continued to decline and were 34% lower than in the same six-month period of 2011.

When the Russian Federation was accepted into the World Trade Organization (WTO) in December 2011, one of the requirements for entry into the organization was that the country had to reduce export and import tariffs on forest products. On 10 July 2012, the Russian State Duma ratified the agreement to join the WTO.

The amendment of the Russian log export tariff system will lower the tariffs on softwood logs from 25% to 15% for pine logs, and to 13% for spruce logs. The new proposed tariff for birch will actually be higher than the current tariffs for small diameter logs at 7%.

In addition to lowering the tariffs, the proposal also includes a volume quota for softwood logs. Below the quota limit, the new tariffs will apply, and for volumes above the quota, current tariffs will continue to be in effect.

The proposed quotas will almost certainly have no effect on trade with the EU, since they are set substantially higher than the volumes shipped in 2011, and are close to the record high levels of 2006. The quota level for countries outside the EU is proposed to be 13

million m³, of which pine species account for 95%. China is the major destination for Russian pine logs, and in 2011, shipments were well below the proposed quota volume. Since 2002, there have been only three occasions when the annual shipments of pine logs have been higher than the quota volume.

Even with the 12% reduction in export taxes, it remains to be seen whether foreign buyers will return to purchasing Russian logs. China, the largest importer of Russian softwood logs, is increasingly choosing to import sawnwood rather than logs from its northern neighbour. More about Russian Federation joining the WTO can be read from chapter 3, section 3.2.1.

4.4 North America subregion

4.4.1 Industrial roundwood markets

Industrial roundwood removals were up less than 1% in 2011 to 426 million m³, which was the highest level since 2008. However, the timber harvests last year were substantially lower in both Canada and the United States and compared with 2007 when they reached 540 million m³ in the two countries. The US suffered the biggest decline, with harvests falling from 379 million m³ in 2007 to 284 million m³ in 2011, a remarkable 25% reduction in available logs. Consumption of roundwood by the US domestic forest industry has fallen even further because the share of logs exported overseas has gone up steadily during the past five years. Total removals of roundwood, including fuelwood, were 469.5 million m³, which was little higher than in 2010. However, consumption in North America was almost the same as in 2011 (table 4.4.1).

TABLE 4.4.1

Roundwood balance in North America, 2010-2011 $(1,000 m^3)$

	(-)/		
	2010	2011	Change %
Removals	465 999	469 499	0.8
Imports	5 740	5 102	-11.1
Exports	13 967	17 727	27.9
Net trade	8 227	12 626	
Apparent consumption	457 771	456 873	-0.2

Note: Figures include industrial roundwood and fuelwood.

Source: UNECE/FAO TIMBER database, 2012.

In 2011, US domestic consumption of softwood logs fell 1.5% from 2010, and was 29% lower than in 2007. This downward trend was mainly the result of the sharp decline in US housing starts, as well as reduced demand for sawnwood by the construction sector. Log consumption by the pulp and wood panel sectors has fallen much less than that of the sawmilling sector.

Hardwood log consumption was slightly higher in 2011 than in 2010 in both Canada and the United States, respectively 4% and 21% lower than in 2007. Hardwood log consumption is a minor item in Canada, whereas, in the United States, it accounts for over one third of the forest industry's total consumption. The majority of hardwood logs are used in sawmilling and the pulping industry.

Historically, Canada's sawn softwood industry has been heavily dependent on the United States: thus, when US demand for sawnwood fell in 2008 and 2009, many sawmills reduced their operating rates and log consumption in Canada declined to its lowest level in 25 years. Since 2007, demand has begun to increase, but has still not achieved the levels of 2007. One positive development since 2009 is that exports of sawnwood and logs to China have risen sharply, benefitting the forest industry and landowners in western Canada.

4.4.2 Industrial roundwood exports

Shipments of softwood logs from Canada and the United States to Asia reached a record in 2011 because of China's continued hunger for wood raw material. In 2009, North America exported \$1 billion of softwood logs, and in 2011 exports doubled in value to \$2 billion. Douglas fir and hemlock logs from the American west coast to China made up the majority of the trade, which equalled about 42% of the North American Pacific Rim trade.

Canada and the United States increased significantly the volumes of logs and sawnwood they shipped to China in the five years from 2007 to 2011 and now occupy a major place in the Chinese wood market. In 2005, only 4% of China's imported softwood logs and sawnwood originated in North America. By 2011, this share had gone up to 18%. Many North American log and sawnwood suppliers have a good chance of expanding their export sales in the coming years and it is likely that their presence in the Chinese market will continue to grow. However, log trade between North America and China in the first half of 2012 has fallen slightly because of reduced construction activity in China.



Source: UNECE/FAO, 2012



Source: USDA APHIS, 2012.

4.4.3 Woody biomass markets

Natural gas prices fell about 45% in the United States during 2011 and the lower prices have reduced the urgency for woody biomass projects in the country. But despite these plunging prices, plans for more facilities using woody biomass continued during 2011 and 2012 in both countries, with a number of projects nearing completion and others in start-up mode.

Future wood fibre demand for all planned biomass projects in the US has dropped in 2012 compared with early 2011. The US had about 450 announced and operating woody bioenergy projects in the first quarter of 2012, including wood pellets, liquid fuel, electricity-generation and combined heat and power (CHP). The projected wood fibre use for all biomass projects is estimated at just over 30 million dry tonnes of fibre annually by 2020, according to Forisk. Most of the decrease in wood use in 2011 was in the generation of electricity for the US domestic market, while the pellet industry has continuously expanded capacity to serve the growing demand in Europe.

Pellet exports from North America to Europe reached a record high in the 1Q/12. Shipments have increased practically every quarter for four years, up from 130,000

tons in the 1Q/08 to almost 670,000 tons in the 1Q/12, according to the North American Wood Fiber Review (Wood Resources International, LLC. 2012a).

In 2011, pellet shipments from North America reached almost two million tonnes, up almost 300% from 2008. The majority of North American pellets were shipped to the Netherlands, the United Kingdom and Belgium, with occasional shipments to Sweden, Denmark and Italy. In 2011, almost 35% of the Atlantic trade was destined for the United Kingdom, while 30% landed in the Netherlands.

Pellet producers in British Columbia had been the major exporters since the first shipments 14 years ago. This changed in early 2012, when investments in new capacity expanded in the US South and US overseas shipments were slightly higher than Canadian shipments.

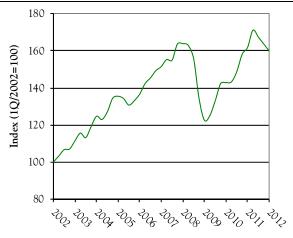
Prices for woody biomass in the US, whether sawmill co-products, forest residues or urban wood waste, have been sliding for most of the past three years but were still higher in the 4Q/11 in most regions than they had been five years earlier, according to the North American Wood Fibre Review. The price drop in 2010 and 2011 was mainly the result of lower prices for fossil fuels, particularly natural gas, and reduced demand for energy. This declining price trend has reduced both commercial and residential energy consumers' interest in switching to more expensive green energy (see the wood energy chapter, section 9.2.3.1).

4.5 Wood raw material costs

Prices for softwood sawlogs fell in virtually all major markets worldwide in late 2011 and early 2012, as reported in the Wood Resource Quarterly, both in local currencies as well as in US dollars. This resulted in the third consecutive quarterly decline of the Global Sawlog Price Index (GSPI) to \$85.90/m³ in the 1Q/12. The Index was down 3.0% from late 2011, and almost 9% lower than the all-time high in the first quarter of 2011. Before the recent decline, the Index had gone up continuously since early 2009 (graph 4.5.1).

Lower demand for sawnwood in many markets in Europe and reduced log imports by China were two major factors that pushed softwood log prices down in early 2012. In US dollar terms, prices fell most in the Nordic countries, coastal British Columbia (BC), Poland, Germany and Austria.

GRAPH 4.5.1
Global softwood sawlog price index, 2002-2012



Note: Price index based on delivered sawlog prices in 19 key regions worldwide.

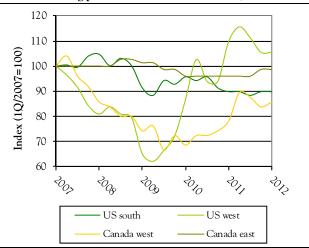
Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.



Source: UNECE/FAO, 2012.

The slowdown in Chinese sawnwood and log demand affected sawlog prices for western hemlock (*Tsuga heterophylla*) sawlogs on the BC coast during the winter months, when they dropped 17% from the 3Q/11 to the 1Q/12. Prior to the recent slide, there was an almost 50% increase in log prices between 2009 and 2011. In the interior of the province, where most of the province's sawmills are located, log prices have been less affected by log exports but more by log supply and sawnwood sales to China (graph 4.5.2).

GRAPH 4.5.2
Softwood sawlog price indices in North America, 2007-2012



Note: Indices are based on delivered log price per m³ in local currency.

Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

In many European countries, sawlog prices also fell during the winter months 2011/2012 (graph 4.5.3). This was predominantly the result of reduced domestic demand for sawnwood, slowing markets in the Middle East and North Africa, and uncertainty over the short-term financial health of the European Union.

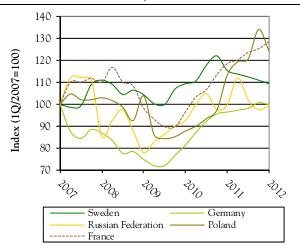
Although sawlog prices fell in most of Europe's large sawnwood-producing countries in late 2011, they were still higher in 2011 than in 2009 and 2010. Many of the continent's sawmills were paying close to the highest sawlog prices seen in at least 17 years during 2011, and this at a time when sawnwood prices were far from any record highs, and in some markets were even declining. The high wood raw material costs and declining wood product prices forced many sawmills throughout Europe to reduce their operating rates during the second half of 2011 and into 2012.

In Northwest Russia, sawlog prices fell in the second and third quarter of 2011 because sawmills in the region had cut back production levels mainly as a result of reduced domestic demand for sawnwood. During the second half of 2011 and into 2012, sawnwood exports also started to decline and many export-oriented sawmills reduced production.

Increased harvesting activity over the summer months also contributed to lower log costs in late 2011. Despite the decline in prices in the second half of the year, sawlog costs in 2011 were still at the highest levels since the all-time highs in 2007-2008.

GRAPH 4.5.3

Softwood sawlog price indices in Europe and the Russian Federation, 2007-2012



Note: Indices are based on delivered log price per m³ in local currency.

Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

4.5.1 Pulpwood prices

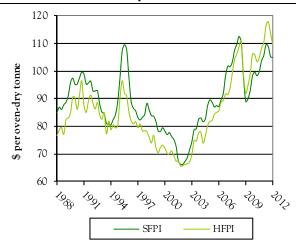
In 2012, the global pulp market has been mired in uncertainty: uncertainty when China will move into buying mode, uncertainty about where the European economy is heading and uncertainty if low spot prices for softwood market pulp will push pulp mills in Europe and North America to take market-related downtime.

In this environment, mills have been trying to squeeze their costs to remain competitive and to be able to run at full capacity. Wood fibre costs account for 50% - 70 % of total production costs depending on the region of the world (Fisher International, 2012), leading mills to focus cost-cutting on reducing the price they pay for wood chip and pulpwood prices in 2012.

This has created a situation in which many wood fibre suppliers to the pulp industry have been forced to accept lower prices for their chips and logs. As a result, wood fibre prices were falling throughout the world in late 2011 and early 2012, according to the Wood Resource Quarterly (Wood Resources International, LCC, 2012b).

This caused the two global wood fibre price indices to decline to their lowest levels in over a year. The Hardwood Wood Fibre Price Index (HFPI) experienced the biggest decline, falling by 7% from its all-time high in the 3Q/11 to \$109.67 per oven-dry metric tonne (odmt) in the first quarter of 2012. Wood costs were down most in Europe and Japan. Also in the first quarter of 2012, the price premium for hardwood fibre over softwood fibre was the lowest since early 2011.

GRAPH 4.5.4
Global wood fibre price indices 1988-2012



Notes: SFPI = Softwood Wood Fibre Price Index, HFPI = Hardwood Wood Fibre Price Index. Prices are based on delivered log price per oven-dry metric tonne in US dollars.

Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

The Softwood Wood Fibre Price Index (SFPI) also declined in the second half of 2011 and into the first quarter of 2012, but by a more modest 4%, from \$108.90/odmt in the 3Q/11 to \$104.88/odmt in the 1Q/12. Softwood fibre price trends have been mixed, with price increases in Oceania, Chile and the US South, but decreases in Europe, western Canada and Japan (graph 4.5.4).

According to the North American Wood Fibre Review (Wood Resources International, LCC, 2012a), softwood chip prices in western Canada fell 25% from late 2011 to early 2012. In the 2Q/12, prices were 18% lower than in the latter part of 2011, when prices were at a 16-year high. This reduction was mainly the result of lower pulp prices, but also because of ample supply of coproduct wood chips in the region.

In many European countries, pulplog and wood chip prices reached almost record heights in early 2011 when global pulp markets were buoyant (graphs 4.5.5 and 4.5.6). Market prices fell in late 2011, causing a fall in wood fibre prices in the spring of 2012 down to levels last seen in 2010.

Weaker pulp markets caused many pulp mills in France and Germany to reduce operating rates, resulting in lower demand for pulplogs in winter 2011/2012. This not only interrupted the almost two-year trend of price increases, but also actually contributed to a fall in prices, back to levels previously seen in summer 2011. With the euro weakening against the US dollar, wood prices in dollar terms have declined even more dramatically than in local currencies.



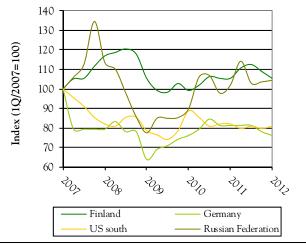
Source: UNECE/FAO, 2012.

In Northern Europe, pulplog prices in early 2012 were lower by 11%-15% from the first quarter of 2011, depending on country and species (graph 4.5.5). It has been difficult to be a forest owner in Sweden in 2011/2012, as prices have declined for both sawlogs and pulplogs. In parts of Sweden, it is not likely that pulplog prices will decline much further as they are now reaching the same levels as energy logs.

Eucalyptus log prices in Spain have been on a steady decline for almost a year now and in 2012 the major fibre consumers have lowered the price they pay to landowners practically every month. In US-dollar terms, the average cost for Eucalyptus log has fallen 21% since its all-time high in the second quarter of 2011.

Despite the recent decline in pulpwood and wood chip price, pulp mills in Europe still have higher wood costs than many of their competitors around the world.

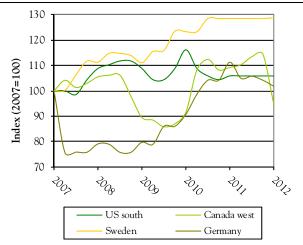
GRAPH 4.5.5
Softwood pulplog price indices in Europe and North America, 2007-2012



Note: Indices are based on delivered log price per oven-dry metric tonne in local currency.

Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

GRAPH 4.5.6 Softwood wood chip price indices in Europe and North America, 2007-2012



Note: Indices are based on delivered wood chip price per oven-dry metric tons in local currency.

Sources: Wood Resource Quarterly, Wood Resources International LLC, 2012.

4.6 References

Note: The *Review* has a statistical annex, which is available at: www.unece.org/fpamr2012

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