



2 The Finnish Forest Industry

2.1 Production and Exports in the Sawmilling and Plywood Industries

Sawnwood demand both in Finland and on the main export markets has fallen during 2009 as a result of the economic crisis and the slowdown in construction. Production limits for sawnwood continue to be in place all over Europe. In Finland, production is expected to be down by one fifth on the 2008 figure, to its lowest level since the 1990s recession. A turnaround is nevertheless expected during 2009, and there were signs of this after the spring, when sawnwood export prices began to rise once again. The growth in construction in 2010 will be slow, however, on both the domestic and export markets. Price rises in Europe will also continue to be slow, and the average export price of sawnwood is expected to rise by about 6% in comparison with that for 2009. Sawnwood production is forecast to rise to 8.2 mill. m³. This would represent a drop of some 40% from the production levels at the start of the decade.

On the plywood market, the turnaround in demand occurred later than on the sawnwood market. The fall in export prices has also been less pronounced than for sawnwood. The production and export volumes of Finnish plywood for 2009 as a whole have nevertheless collapsed to half of their levels of a year earlier. The contraction in production concerns especially birch plywood, a key raw material for which are birch sawlogs imported from Russia. The slump in birch sawlog imports and the decrease in domestic fellings have led to a shortage of this raw material at the production plants. In 2010, plywood production is expected to pick up, but the recovery in sawnwood production will be

slow. The average price of plywood exports is forecast to rise by about 6%.

Slow Growth in the Economy Keeps Demand for Wood Products Low

The consumption and prices of wood products fell considerably around the world as a result of the global economic crisis that began in 2008 and the consequent slow down in construction. In North America and Europe, in particular, the fall in demand exacerbated the sawnwood oversupply situation in the first half of 2009. This redirected a lot of trade away from Europe to other markets, such as North Africa.

Forecasts show that the value of new housing construction in Western Europe in 2009 as a whole will average about one fifth less than in 2008. The economic recovery packages are nevertheless expected to boost construction in the latter part of 2009 and in 2010. Forecasts for 2010 indicate that the growth in construction will be slow, however. The total value of new housing construction in Western Europe in 2010 is forecast to be slightly below the 2009 level. There will, however, be differences in the construction trend from one country to another: in France, Germany and the United Kingdom, construction value in 2010 is forecast to rise above the previous year's level, whereas in Finland, for example, it is likely to be almost 10% below the 2009 figure.

In the United States, housing starts in 2009 will be down on the previous year by about one quarter. Housing starts in 2010 will be

significantly below the long-term average, although growth is expected to have begun. In Russia, the construction boom of recent years has faded and the total amount of housing construction has fallen. By contrast, the figures show that timber-framed house construction has increased again, although the pace of growth has slowed. In Japan, housing starts in January–May 2009 were down by one fifth year on year. However, the Japanese economy turned onto a growth track in summer 2009, and the rise in GDP is forecast to accelerate in 2010, probably increasing the volume of construction. In China, a factor more important than construction in affecting sawnwood and plywood demand is the added-value processing for the export market, which is in turn dependent on the economic situation in the United States and Europe.

Since the anticipated recovery in construction will be slow, the growth in sawnwood demand in Europe is likely to be low in 2010. The market will pick up slowly in the United States and Japan as well. North Africa and the Middle East have not experienced the same kind of drop in sawnwood demand as that seen in the rest of the world. The growth in sawnwood imports to these regions from Europe and Russia is nevertheless a sign that the oversupply situation is worsening.

Improved Economic Situation in Late 2009

Overall exports of Finnish sawnwood fell in January–June 2009 by about one fifth, year on year. Sawnwood exports to European markets were down by an average of 34%, with exports to the UK, for instance, falling by more than 40%. Exports to Asia and especially Japan were also down, but exports to the North Africa market grew slightly. The change in the pattern of Finnish sawnwood exports has been dramatic: in the first half of 2009, exports to markets outside Europe were greater than those to Europe, and Egypt became the biggest export destination for Finnish sawnwood.

In January–June 2009, Finnish sawnwood production fell by more than exports, by around one quarter on the previous year's figure. The drop in production was attributable not only to

*The Finnish sawmilling and plywood industries, 2008
1000 m³.*

	Sawnwood	%	Plywood	%
Production	9 800	100	1 265	100
*Domestic use	3 820	39	182	14
Exports:	5 980	61	1 083	86
EU	3 089	32	918	73
Africa	1 515	15	2	0
Asia excl. Japan	475	5	66	5
Japan	777	8	10	1
North America	3	0	24	2
Russia	8	0	4	0
Other	113	1	59	5

*Estimated domestic use = production – exports

Sources: Finnish Forest Industries Federation and National Board of Customs.

the economic recession on export markets but also the weak domestic market. Some sawmills have also been adversely affected by the shortage of sawlogs following the slump in roundwood sales and felling volumes of sawlogs. Despite the gloomy economic situation in the first half of 2009, the expectations of the Finnish wood products industry have become a little more optimistic. Buyers' sawnwood stocks have been reduced and export prices began to rise gently in the summer. Figures show that the year-on-year drop in production in 2009 slowed a little, but then accelerated as the July holiday period commenced.

Among Finland's competitors, the trend in Sweden's sawnwood exports has deviated from that seen elsewhere. Despite the weak state of the economy on the European and Japanese wood products markets, overall exports of Swedish sawnwood grew in the first half of 2009 compared with the figures for a year earlier. Exports outside Europe were up by over 30%, and export volumes to many of the main European markets, such as the UK and Germany, remained unchanged or even grew. Swedish sawnwood producers have in fact succeeded in winning market share from Finnish producers on many of the key export markets. A contributory factor in this success has been the weakness of the Swedish krona in relation to the British pound, the US dollar and the euro. Besides exchange rates, Sweden's sawnwood producers have benefited from the timber felled by the Per storm in 2007, which was still entering sawmills in 2009. However, the

strengthening of the krona has begun gradually to weaken the price competitiveness of Swedish sawnwood producers.

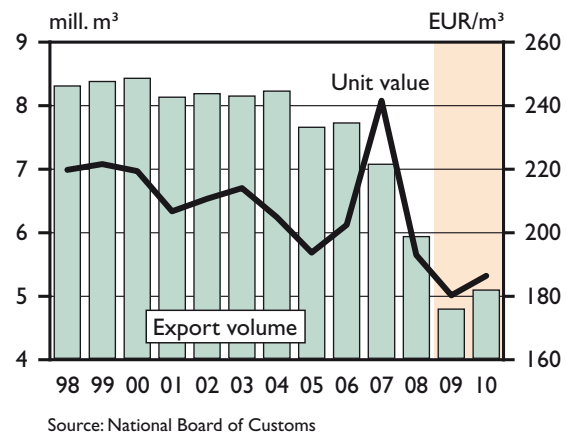
Among competitor countries, Russia's sawnwood export volumes continued to fall in the first half of 2009, and exports for the full year are likely to be about 15% below those of 2008. An exception to this is the growth of about 40% in sawnwood exports to China in the first six months of 2009. As Russia's roundwood export duties rise, China has substituted its roundwood imports with imports of sawnwood. Russia's sawnwood production for 2009 will probably be down by more than exports, by about 20%. The reasons for the drop in production are the fall in domestic and export demand and the roundwood export duties, which have had a negative impact on Russia's roundwood felling and forest industry production.

Since the economy will continue to be weak on the main export markets, no significant growth is expected in the export volumes of Finnish sawnwood in the latter part of 2009. The sawnwood export volume for the full year 2009 is expected to be about 20% below that for 2008. In 2010, exports are forecast to grow by 5% as demand begins to slowly recover on the export markets.

Slow Rise in Sawnwood Market Prices in 2010

The fall in sawnwood demand and market prices in Europe during 2008 led to major production limits being imposed. Despite these limits, prices continued their downward slide in Europe during the first half of 2009. The unit prices of Finnish sawnwood exports in January–June 2009 were about one fifth below the level of a year earlier.

However, the sawnwood production limits imposed have, since the spring, begun to affect sawnwood prices in Europe. In the United States, the price of sawnwood has risen a little since the start of the year, while in Japan the low stock levels is likely to mean that prices will start to rise in the latter part of 2009. Demand has not actually started to grow, but, rather, buyers have begun to replenish their depleted stocks. The unit prices of Finnish sawnwood exports have



Volume and unit value of sawnwood exports, 1998–2010 at 2008 prices (wholesale price index).

also begun to rise since the spring. The average export price in June 2009 had risen by over 8% from its lowest level in April. Nevertheless, the average price in June was still 10% below the June 2008 level. The price is expected to continue rising in the latter part of 2009.

Despite the end of the downward slide in unit prices of sawnwood exports, prices for the full year 2009 are still expected to be about 12% lower than a year earlier. Stronger demand for wood products in 2010 should mean a continuation of the rise in sawnwood prices. Demand growth will nevertheless be slow, and so a rapid rise in prices is not foreseen. The average unit price of Finnish sawnwood exports in 2010 is expected to rise by 6% on the 2009 figure. The tough competition, especially in Europe, will ensure that the rise in export prices is slow. Regaining the market share lost to the Swedes will depend largely on the krona exchange rate, which has already turned in a more favour direction for Finnish exporters. However, the rise in sawnwood prices, indicating a turnaround in the economy, will prompt an increase in sawnwood production within export markets themselves, which, combined with slowly recovering market demand, will effectively keep price rises in check.

The price bubble seen on the sawnwood market demonstrates the volatility of the market and the greater uncertainty in the current decade. The main reason for this change in the structure of the market is the considerable growth in sawmilling capacity in Western Europe since 2000.

Another factor fuelling the uncertainty has been Russia's political decisions on restricting exports of its roundwood.

Sawnwood Production Volumes at Early 1990s Level

In 2008, Finnish sawnwood production was down by 2.6 mill. m³, or 21%, on the previous year's figure. This corresponded to almost 30% of the approximately 9 mill. m³ drop in the entire European Union's sawnwood production. The sharp decrease in Finnish sawnwood production has continued in the first half of 2009, and has been attributable not only to the fall in demand on export markets but also the rapid contraction in domestic demand. In recent years it has been specifically the domestic consumption of sawnwood (40% of sawnwood demand in 2008) that has supported the growth in sawmilling. However, the slowdown in construction in Finland has been even more rapid than in Europe: the number of housing starts in January–June 2009 was about 40% down year on year, and, in contrast to many other countries, new construction is expected to decline further in 2010. The extended coverage of the household tax credit arrangements has led to an increase in renovation work on existing buildings, which is likely to compensate for some of the shrinkage in new construction. Despite this, sawnwood consumption in Finland for 2009 as a whole is expected to be down by one fifth. In 2010, the growth in building renovations is likely to turn the declining consumption into a growth of about 2%.

The fall in the market price of sawnwood together with the relatively high costs has had a considerable adverse effect on the profitability of sawnwood production. This has led to production cuts, and further cuts are planned. Metsäliitto, for instance, announced the closure of its Teuva sawmill in January 2009, and Stora Enso is to close its Tolkkinen sawmill at the end of 2009, and possibly its Varkaus sawmill a year later.

The precise impact of these closures on sawnwood production volumes is difficult to estimate, because the milling volumes at the remaining sawmills will be affected by any increases

Forecasts of production and exports in the sawmilling and plywood industries, 1000 m³ (percentage changes from previous year are shown below the respective volumes).

	Production			Exports		
	2008	2009	2010	2008	2009	2010
Sawnwood	9 800 -21	7 800 -20	8 200 5	5 960 -15	4 800 -15	5 100 6
Plywood	1 265 -10	650 -49	690 6	1 081 -13	570 -47	600 5

Forecasts of export prices for sawnwood and plywood (as percentage changes from previous year).

	2008	2009	2010
Sawnwood	-16 (193 €/m ³)	-12	6
Plywood	3 (563 €/m ³)	-11	6

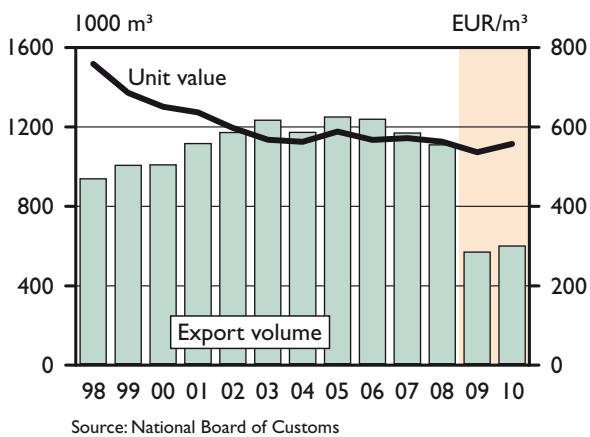
Export prices are nominal unit values

or decreases in the number of shifts worked. Sawnwood production was last at such a low level during the recession in the early 1990s.

Despite the sluggish recovery on export markets and the gloomy outlook for construction in Finland, a reversal of the decline in sawnwood production is expected before the end of 2009. In 2010, sawnwood production will rise slowly, by about 5% on the 2009 level, reaching 8.2 mill. m³. In comparison with the figures for the start of this decade, production quantities have nevertheless slumped by about 40%. Although the wood products market is not experiencing the same kind of structural change in demand as that in the market for paper products, it is probable that the level of sawnwood production will remain more permanently below the level seen in the years preceding the current recession.

Collapse in Plywood Exports

Demand and prices on the plywood export market began to weaken later than in the case of sawnwood, but in 2009 the pace has been quicker than for sawnwood. Exports and production of Finnish plywood have collapsed very dramatically: the export volume in January–June 2009 was 50% down, year on year, and production was down by



Volume and unit value of plywood exports, 1998–2010 at 2008 prices (wholesale price index)

well over 50%. The slump in plywood production was particularly marked in the case of birch plywood, which fell by almost 60%. Despite the major cuts in production, no announcements of significant closures affecting Finnish production units had been made by October 2009. No major changes in the plywood market are anticipated in the remainder of 2009.

Birch plywood production has been partially dependent on imported birch sawlogs from Russia. In 2008, Russian birch sawlogs accounted for more than one third of plywood production. Finland's birch sawlog imports in the first half of 2009 were down by almost 95% year on year as a result of the Russia's plans to raise its roundwood export duties and because Finnish companies were dismantling their Russian roundwood procurement organisations. At the same time, roundwood sales and felling volumes in Finland were at a record low. This has led to a raw material shortage specifically in birch plywood production, which, together with the fall in demand on export markets, has caused a collapse in plywood exports and production. If birch sawlog imports remain permanently at a fraction of their former levels, this will inevitably worsen the prospects for birch plywood production in Finland.

Finland's most important competitor on the Western European plywood market is Russia, which has been investing in plywood production in recent years. Russian plywood production has in fact almost doubled during the current decade. This production growth has been sustained by

the growth in domestic construction and by the country's domestic plywood consumption as Russia's economy has grown. In the first half of 2009, however, Russian plywood production was down by one third on the previous year's figure, due to the rapid contraction of domestic consumption. By contrast, exports of Russian plywood have remained almost unchanged. On the plywood export market Finland has probably lost market share to Russia.

In spite of the collapse in plywood export volumes, the fall in unit prices of plywood exports has been quite moderate in comparison with that of sawnwood. In January–June 2009, the average unit price of exports was more than 10% down, year on year. In 2008, the nominal export price of plywood rose by 3% on 2007, whereas the sawnwood export price fell by more than 16%. The uses for plywood are more diverse than for basic sawnwood, which helps to limit the fluctuations on the plywood market and has maintained the profitability of production. Neither has the European plywood market experienced oversupply of the kind seen on the sawnwood market. The drop in plywood export prices is expected to tail off in the latter part of 2009, bringing the average price for the full year to 11% below that for 2008. In 2010, with a slow recovery beginning in the economies and construction sectors on the export markets, production and export volumes of Finnish plywood will be up slightly on their 2009 levels. Plywood production is expected to rise to about 0.7 mill. m³, which is about half of the 2008 production level. As with the sawnwood export price, the rise in the export price of plywood in 2010 is expected to be quite small, at approximately 6%.

2.2 Production and Exports in the Pulp and Paper Industry

The economic crisis that deepened towards the end of 2008 led to a slump in world demand for paper and paperboard. The current recession accelerated the structural change already under way in the sector, and production capacity cuts were made in the paper, paperboard and pulp industries. The production cuts in Finland have been larger in relative terms than those elsewhere in Europe.

The demand for paper and paperboard products on Finland's export markets is expected to remain at a low level in the latter half of 2009 as well, even though a positive turnaround in the economy is already occurring. With production capacity being cut and production limits imposed, Finnish paper production and exports for 2009 as a whole are expected to be down in volume terms by almost one quarter on the previous year's figures. Production and exports of paperboard will be down by 15–17% on the 2008 figures. The production cuts made in Finland and elsewhere in Europe have enabled a small increase in market prices, and the average export prices of Finnish paper and paperboard products for the full year 2009 are expected to be up by 2%.

Although the lowest point of the recession has already been reached, economic growth is expected to be relatively low in 2010. Production and exports of Finnish paper, paperboard and pulp are forecast to grow in 2010 by about 5%. There will be further capacity cuts in the paper industry, but for many products there will still be overcapacity as demand remains low despite the slight growth in the economy. The conditions for significant price increases will not yet be in place in 2010. Nominal average export prices of Finnish paper and paperboard in 2010 are forecast to remain at around their 2009 levels.

Demand for Paper and Paperboard Collapsed in Late 2008 and Remains Low in 2009

The paper industry in Finland and elsewhere in Europe has suffered from oversupply throughout the current decade, because the growth in paper consumption is slow and production capacity has grown at a significantly faster rate than the demand for paper. During 2008 paper consumption in Europe turned onto a downward track, and the global economic crisis that began in the final quarter of the year led to a slump in the world demand for paper and paperboard. The sharpest drop occurred in the demand for printing and writing papers, but the demand for packaging board and paper also contracted markedly. By contrast, the impact of the economic crisis on the demand for tissue and hygiene papers was relatively minor. Overall consumption of paper and paperboard in Europe during 2008 fell by 3.7% on the previous year's figure. With the drop in Europe's paper and paperboard production being relatively smaller than the decrease in consumption, the market still suffered from oversupply.

Global demand for paper and paperboard products continued to shrink considerably in early 2009. According to the Association of European Publication Paper Producers (Cepiprint) and the European Association of Fine Paper Manufacturers (Cepifine), the demand for newsprint in January–July 2009 among the countries involved with the Confederation of European Paper Industries (CEPI) fell by 13% on the 2008 figures. The corresponding percentage decreases for coated and uncoated magazine papers were 25% and almost 20%, respectively. The demand for fine paper was down by about 17%. The drop in the demand for paper and paperboard products in the first quarter of 2009 was sharp, but in the second quarter this had tailed off. Demand for printing and writing papers and packaging products in Finland's main market areas will not improve significantly until the economy begins to really recover.

In North America, overall consumption of paper and paperboard in 2008 shrank by almost 8%. With production decreasing by only 5%, net exports grew substantially, by over 30%. The

	Chemical pulp	% of production	Paper	% of production	Paperboard	% of production
Production	7 159	100	10 229	100	2 897	100
Domestic use*	5 069	71	932	9	298	10
Exports:	2 090	29	9 297	91	2 599	90
EU	1 432	20	6 115	60	1 474	51
Russia	20	0	410	4	227	8
Other Europe	125	2	435	4	169	6
Asia	473	7	708	7	392	13
Africa	28	0	121	1	80	3
United States	3	0	841	8	167	6
Russia	20	0	410	4	227	8
Other	9	0	668	7	90	3

* Estimated domestic use = production – exports

Sources: Finnish Forest Industries Federation and National Board of Customs.

reduction in US consumption of newsprint and other printing and writing papers has continued for some time already, and has led to cuts in production capacity during the current decade. Growth has occurred only in the consumption and production of packaging and other papers.

Due to the economic recession, paper and paperboard consumption in Russia and the CIS countries in 2008 showed no year-on-year growth but instead remained at the previous year's level. Imports also remained unchanged, while production was up slightly. Russia's own paper and paperboard production has grown steadily, though at a slow rate, throughout the current decade. In 2008, the country's paperboard production was up by more than 5%, while paper production decreased by 2.5%.

Since 2000, Asia has been the world's largest and fastest growing consumer and producer of paper and paperboard, accounting for about 40% of the world's consumption and production. China's share of this has been a little over 50%. Paper and paperboard consumption have grown rapidly in China, more than doubling since 2000. Consumption of packaging paper and paperboard has grown significantly faster than the consumption of printing and writing papers. At the same time, China's own paper and paperboard production has grown even more rapidly, increasing by a factor of almost 2.5. This has turned China into a net exporter of paper and paperboard since 2007.

In 2008 the global economic recession was also felt in China's economy during the final

quarter, slowing the growth in paper and paperboard consumption. China's demand for paper and paperboard grew in 2008 by 'only' 9%, and the paper industry adjusted its production in line with domestic demand by introducing shutdowns. Net exports of paper and paperboard remained at the level of the previous year. In the first few months of 2009 the country's consumption growth remained slow and production limits were still imposed, but in the second half of the year consumption and production are nevertheless expected to grow as the Chinese economy recovers.

Paper Industry Cuts its Production Capacity

The collapse in demand and exports in 2008 accelerated and added to the production capacity cuts in the paper and paperboard industry that had already been planned, both in Finland and abroad. Stora Enso closed its Summa paper mill (capacity 350 000 tonnes p.a. newsprint and magazine paper), the PK 2 machine at its Anjala mill (155 000 tonnes p.a. magazine paper) and its Varkaus-based Corenso core board machine (110 000 tonnes p.a.). UPM closed its entire Kajaani paper mill (640 000 tonnes p.a. newsprint and magazine paper) and M-Real the PK 2 machine at its Kangas mill (100 000 tonnes p.a. coated magazine paper).

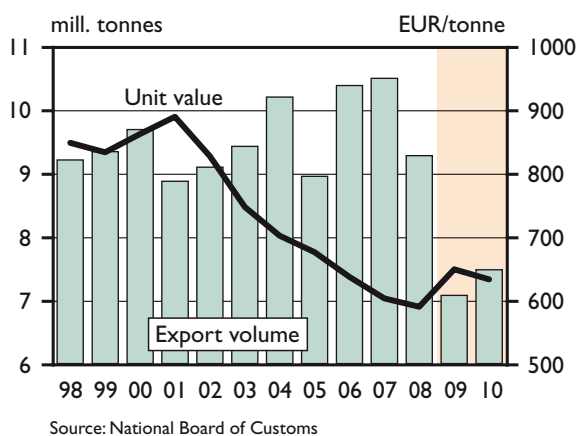
These production plant closures in Finland reduced the paper and paperboard industry's capacity by about 1.4 mill. tonnes between

the start of 2008 and the end of March 2009. The reason given for the cuts in paper industry production in Finland is poor profitability due to the continuing overcapacity in Europe and the major price rises for roundwood, energy and fuel over the past two years.

As a consequence of the production plant closures and production shutdowns, Finland's paper production in 2008 fell by 9% and paperboard production by 5% on the previous year's figures. The newsprint and magazine paper production cuts in Finland have generally been larger in relative terms than those elsewhere in Europe. In the CEPI countries, paper and paperboard production in 2008 shrank by about 4%.

With the collapse of demand for paper and paperboard products on the European market, the export volumes of all products fell in the final quarter of 2008, and especially in December. The export volume of paper in 2008 fell year on year by 12% and paperboard by 2%. Exports of newsprint were down by as much as 40% and fine paper by almost 10%.

The closures of paper mills and machines in Europe reduced the production capacity of printing papers by 3.1% in the period 2007–2008. With Europe's production of printing papers falling by only 1.6% over the same period, the capacity utilisation rate rose to 93.4% in 2008, having last reached such a high level in 2004. The overcapacity of printing papers in Europe fell from 3.7 mill. tonnes to 1.9 mill. tonnes in the period 2002–2008.



Volume and unit value of paper exports, 1998–2010 at 2008 prices (wholesale price index).

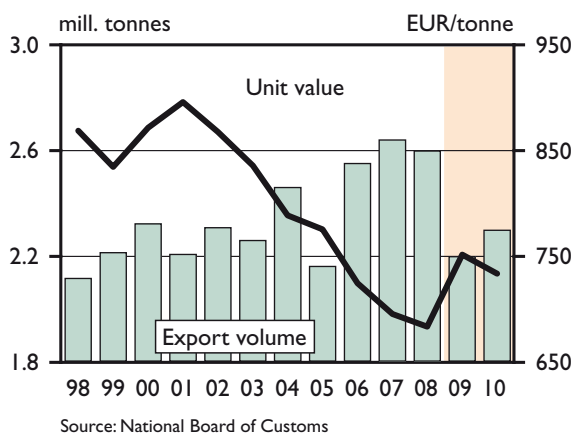
In Finland, paper and paperboard production capacity cuts are continuing. In August 2009, Stora Enso announced that it would close the PK 8 machine (210 000 tonnes p.a. fine paper) at its Imatra mill in the first quarter of 2010. In addition, Stora Enso is planning to close its Varkaus paper mills (310 000 tonnes p.a. fine paper and 290 000 tonnes p.a. newsprint and catalogue paper) completely by the end of 2010, unless the balance of demand and supply on the market for uncoated fine paper improves considerably.

Production and Exports of Paper and Paperboard Down in 2009, but Prices Stable

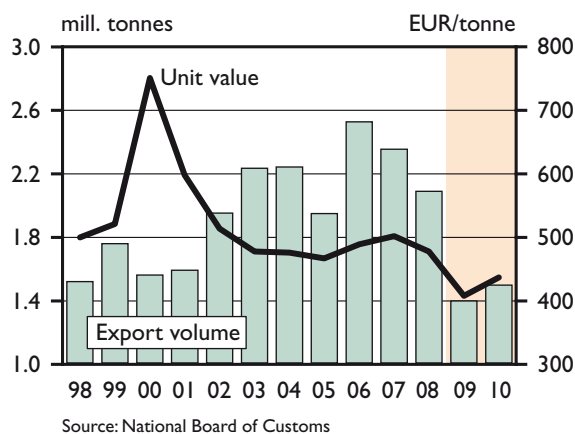
In the first half of 2009, the volume of Finland's paper exports was down by 33%, and paperboard exports down by 23%, on the previous year's figures. The export volumes were at their lowest in the early months of 2009, after which they began to climb slightly.

More than half of Finnish paper exports consist of magazine paper, while fine paper constitutes a further third. Although the market trend differs greatly from one paper grade to the next, demand for all paper and paperboard products has continued to be weak during the first half of 2009. In January–June, the export volume of magazine paper was down year on year by almost 40%, newsprint by 80% and fine paper by 20%.

The average unit prices of Finnish paper and paperboard exports in the first half of 2009 were 3–4 per cent higher than the average for the whole of 2008. Average prices of newsprint and magazine paper were about 4% higher, and fine paper 4% lower, than the 2008 average. Monthly prices of paper and paperboard rose during March–April, but fell again in June. Although paper and paperboard demand on export markets is expected to turn onto a gentle upward track as the economy improves slightly in the second half of 2009, no new price rises are anticipated in the remainder of the year. The average price of paper and paperboard exports is expected to be up by 2% in 2009 from the average for the previous year.



Volume and unit value of paperboard exports, 1998–2010 at 2008 prices (wholesale price index).



Volume and unit value of pulp exports, 1998–2010 at 2008 prices (wholesale price index).

Production and exports of Finnish paper for the full year 2009 are expected to be down by almost one quarter on the 2008 figure, due to the production capacity closures and production shutdowns. Exports and production of paperboard are expected to be down by 15–17%.

Production, Exports and Price of Pulp Down in 2009

With the contraction in paper industry production, Europe’s overall demand for wood pulp in 2008 declined. The drop in demand led to a 30% fall in the euro-denominated PIX price of both softwood and hardwood pulp in Europe in a two-month period at the end of 2008. In the countries covered by the Confederation of European Paper Industries (CEPI), the capacity utilisation rate plummeted to 90.8% in 2008. In the CEPI countries, both exports and imports of pulp were down by about 4%. More than half of pulp imports were from Latin America and one third from North America.

In the first quarter of 2009, the major production limits imposed allowed softwood pulp prices to strengthen in Europe. In the CEPI countries, production shrank by almost one fifth in comparison with the same period in 2008. Since the start of 2009, the euro-denominated PIX price of softwood pulp has gradually risen, increasing by altogether almost 10% up to the end of September. By contrast, the PIX price of hardwood pulp was again about 2% lower

than at the start of the year, because production was not correspondingly cut back in the South American mills.

In 2004–2008, North America’s production of wood pulp shrank considerably. In Canada, production fell by 6 mill. tonnes, and in the United States by 1.5 mill. tonnes. In 2008, the economic recession reduced demand in North America by 8%, and the price of pulp was falling. By May 2009, the softwood pulp PIX price in dollars had fallen by 30% since August 2008. Following this, the price then rose by about 20% to the end of September.

As Asia has been the world’s largest producer region for paper and paperboard during the current decade, it has also become a major user of fibre, especially recovered paper. Due to a shortage of wood raw material, Asia’s production of wood fibre is significantly lower than its consumption, and so Asia’s imports of wood fibre in 2008 already accounted for almost 40% of the world’s wood fibre imports. China’s share of Asia’s wood fibre consumption is almost 40%. The lack of wood raw material has led China to meet more than half of its wood fibre need through imports. The current recession has slowed the growth in China’s wood fibre consumption, and so the decline in the dollar price of hardwood pulp that began at the end of 2008 continued in the first quarter of 2009. However, the price has subsequently risen by about 40% to the end of September. The hardwood pulp price is nevertheless still about 30% lower than in the first half of 2008.

In Finland, production capacity has been reduced especially since the demand for paper and pulp collapsed in 2008. In 2008, Stora Enso closed its Kemijärvi pulp mill (capacity 235 000 tonnes p.a. bleached softwood pulp), M-real closed its Lielahiti pulp mill (105 000 tonnes p.a.) and UPM its Tervasaari pulp mill (210 000 tonnes p.a.). In the first quarter of 2009, Metsä-Botnia closed its Kaskinen pulp mill (450 000 tonnes p.a.). By the end of March 2009, these production plant closures had reduced pulp capacity in Finland by about 1 mill. tonnes. Further to this, Stora Enso is planning to close its Sunila pulp mill (375 000 tonnes p.a.) in the second quarter of 2010. All these forest industry companies have also imposed significant limits on their remaining pulp production through introducing a number of shutdowns.

In the first six months of 2009, the export volume of pulp was 45% lower than a year earlier. Monthly figures show that pulp exports were at their lowest in January, after which they rose steadily to April, but then in June returned to their January level, due to production shutdowns.

The average monthly price of Finland's pulp exports fell steadily from November 2008 until April 2009, by almost 30%. The average export price of Finnish pulp in the first half of 2009 was 23% lower than the average for the full 12 months of 2008. In July, pulp demand and the price of pulp began to rise slightly, and the price of pulp is expected to rise further in the remaining part of 2009. Nevertheless, the average export price for Finnish pulp is expected to be down by 20% for 2009 as a whole.

Finnish pulp production for 2009 is expected to be down by about 16% on account of the production capacity closures and production shutdowns, and pulp exports by 30%, in comparison with 2008.

Production and Exports of Paper Products Up a Little in 2010

Growth in the consumption of paper and paperboard on the European market was already low long before the economic recession. Although a turnaround has already occurred in the economy,

Forecasts of production and exports in the pulp and paper industry (1000 tonnes); percentage changes from previous year are shown below the respective volumes.

	Production			Exports		
	2008	2009	2010	2008	2009	2010
Chemical pulp	7 159 -7	6 000 -16	6 300 5	2 090 -11	1 400 -30	1 500 5
Paper	10 229 -9	7 800 -23	8 200 5	9 297 -12	7 100 -24	7 500 5
Paperboard	2 897 -5	2 400 -17	2 500 5	2 599 -2	2 200 -15	2 300 5

Forecasts of export prices for pulp and paper products (as percentage change from previous year).

	2008	2009	2010
Chemical pulp	0 (478 €/t)	-20	10
Paper	2 (592 €/t)	2	0
Paperboard	3 (684 €/t)	2	0

Export prices are nominal unit values.

growth is expected to remain relatively low in 2010 as well. In addition, some assessments suggest that Europe's consumption of printing papers will never return to the pre-recession level, due to the market share lost by printed paper products to electronic media, and so only a minor growth in demand for paper products in Europe is forecast.

Paper industry's profitability in Finland is still relatively weak in 2009. The reasons for the paper industry's poor profitability in Finland are the high production costs in relation to competitor countries and in relation to the price of end products. The costs of wood raw materials, in particular, rose in 2007 by almost 30% and have remained high right through to 2009, because industry stocks have included a large amount of domestic and foreign softwood pulpwood procured at high cost. In hardwood pulp production, Finland is not competitive against the new pulp mills of South America, for example, because the wood raw material costs are significantly lower there. Moreover, Finland's competitiveness in magazine paper production is weaker than that of Central and Western European producers, because they use recycled fibre, which is a lot cheaper than roundwood.

A major continuing problem for Finland's competitiveness in relation to, for instance, European competitor countries is the high transport costs incurred due to the long distances to the main markets. The means employed by the Finnish paper and paperboard industry to improve its profitability have been not only to lower production costs but also to reduce production in Finland by cutting production capacity, which will continue to be the case in 2010.

The planned capacity cuts in Finland and elsewhere in Europe will reduce overcapacity and create the conditions for a rise in prices. However, the beneficial effect for the paper industry of the rise in prices will not be great due to the slow recovery in the economy and the slow growth in paper demand in the industry's main export markets. Indeed, the average export prices of paper and paperboard in 2010 are forecast to remain at around their 2009 levels, but the price of pulp is expected to rise by 10%. Production and exports of Finnish paper, paperboard and pulp are forecast to grow in 2010 by about 5%, due to the cuts in production and the very low growth in demand.

2.3 Costs and Profitability in the Finnish Forest Industry

The financial statements of the major Finnish forest industry corporations show that the profitability of the Finnish wood products industry fell to an unprecedentedly low level in 2008. This collapse was due to the global economic crisis, which reduced the consumption of wood products, causing oversupply and a further fall in the export prices of wood products. During 2009, no significant improvement has occurred in the profitability of the wood products industry, and the situation is expected to continue unchanged to the end of the year. Profitability in the wood products sector is likely to improve in 2010, probably reaching the level seen around the mid-point of the current decade.

Like the wood products industry, the marked deterioration in the pulp and paper industry's profitability that began in 2008 has continued. During 2009, the price trend in pulp and paper products has improved marginally, but any improvement in the sector's profitability will not be seen until 2010, despite the business efficiency improvements undertaken and the favourable developments in overall costs.

Wood Products Industry Will Gradually Return to Profitability

The financial statements of the major Finnish forest industry corporations (Metsäliitto, Stora Enso and UPM) show that the profitability of the wood products industry plummeted to an unprecedentedly low level in 2008. This gloomy news was due to the global economic crisis, which reduced the consumption of wood products, causing oversupply and a further fall in the export prices of wood products. The situation for the sector as a whole has deteriorated further during 2009, although there are considerable variations in profitability between companies in the sector. At the sectoral level, there is no likelihood of loss-making activities becoming profitable before the end of 2009.

To improve their business operating potential, the forest industry companies have continued to introduce temporary production limits and permanent capacity cuts during 2009, as they have done in recent years, in the hope of reducing both variable and fixed costs. Operations have been reorganised in the sawmilling and plywood industries, within units of all the major Finnish forest industry corporations. The slowdown in demand for end products has reduced the price of wood raw materials, but the impact on production costs has been minor, in 2009 as well, because companies have, for the most part, been using more expensive raw materials acquired in earlier years. The fall in demand in the second half of 2009 is forecast to slow, and at the same time sawnwood market prices are expected to rise gradually as stocks run down

and demand from wholesale purchasers grows. On the plywood market, demand began slow down later than on the sawnwood market, and no significant improvement is expected in the overall demand for plywood or in plywood prices before the end of 2009.

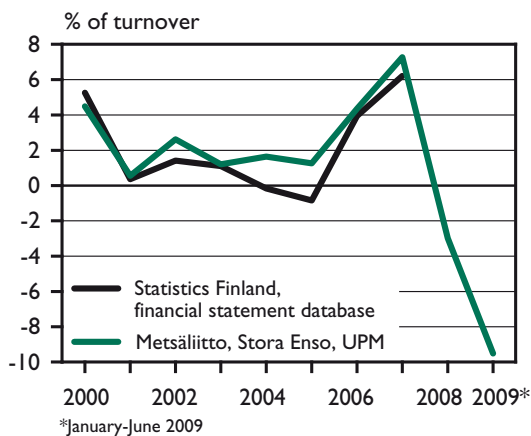
A recovery in the wood products industry as a whole is anticipated in 2010, bringing it back into profitability, marking a return to the level prevailing at the mid-point of the current decade. The reasons for such a recovery will be a revival in new housing construction and in renovations as a result of growth picking up in the economy, a fall in production costs on account of the capacity cuts planned or already made, the gradual rise in market prices of wood products and the moderate increase in roundwood costs in all roundwood categories. About one third of the overall costs for all subsectors of the wood products industry consists of wood raw material and its transportation, which is why roundwood prices have such an important influence on the operating potential for companies.

Based on the financial statements database maintained by Statistics Finland, the profitability trend in the wood products industry up to 2007 accorded with what might be expected on the basis of financial statements data for the wood products businesses of the three largest forest industry corporations. These calculations did not

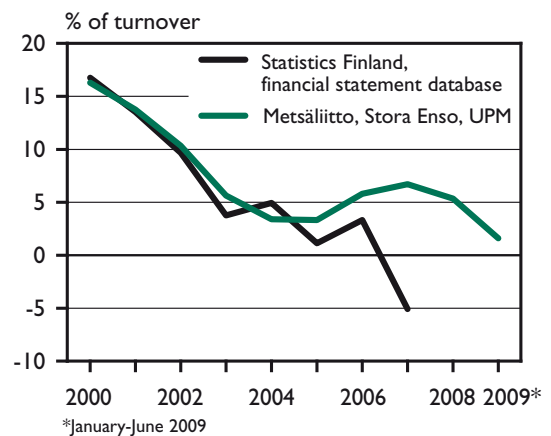
take account of the subsectoral data for 2008, which was not yet available from Statistics Finland. The profitability indicators used here were operating profit as a percentage of turnover (for Stora Enso and UPM) and EBIT as a percentage of turnover (for Metsäliitto and the Statistics Finland data). The figure for EBIT as a percentage of turnover is based on adjusted financial statements, and the operating profit as a percentage of turnover is based on unadjusted financial statements, and so they are not fully identical as profitability indicators. The Statistics Finland dataset has data only on production units located in Finland, whereas the data from the financial statements of the major forest industry corporations also covers operations outside Finland. Furthermore, the Statistics Finland dataset includes not only data on large companies but also on small and medium-sized companies, the latter category constituting about one third of the turnover in the wood products sector in the current decade.

Pulp and Paper Industry Profitability Gradually Turning on to Gentle Growth Track

According to the financial statements of the major Finnish forest industry corporations (Metsäliitto, Stora Enso and UPM), the profitability of the



Profitability in the wood products industry, 2000–2009, measured in terms of operating profit as a percentage of turnover and EBIT as a percentage of turnover¹.



Profitability in the pulp and paper industry, 2000–2009, measured in terms of operating profit as a percentage of turnover and EBIT as a percentage of turnover¹.

¹ The profitability data for Metsäliitto and Statistics Finland is based on the calculation of EBIT (operating result) as a percentage of turnover, using adjusted financial statements data. The calculation of the profitability of Stora Enso and UPM is based on operating profits as a percentage of turnover, using unadjusted financial statements data.

pulp and paper industry for the full year 2009 will show a continuation of the dramatic downturn in the industry. The deteriorating profitability trend that began in 2008 is attributable to the global economic recession, as a consequence of which the demand for every paper grade was down year on year in all market areas. At the same time, corporate profitability was chipped away considerably by the higher wood raw material and energy costs. The demand for pulp and paper for the full year 2009 will still be low in relation to the pre-recession years, although a slight improvement will have already occurred in relation to the start of the year, on account of the capacity cuts, production limits and the small rise in paper export prices.

Forecasts suggest that the pulp and paper industry's profitability will start to improve in 2010. This improvement will be attributable to a revival in demand, the low growth in raw material costs compared with 2009, and the productivity impact of business efficiency measures planned or already undertaken. A key factor in the profitability trend will also be the cost trend for the minerals and chemicals used in production processes and the level of transportation costs. Both these cost items are linked in key respects to the price of energy, which has been falling during 2009. It must be remembered, however, that decisions on combating climate change will have a significant impact on the costs of energy and transportation in the next few years, and could even have a very considerable adverse effect on the cost competitiveness of the Finnish forest industry. The costs of minerals and chemicals will also play an important role in competitiveness, as these costs are affected not only by energy prices but also by the prices of raw materials used in their manufacture and by fluctuations in global demand.

The figures in the financial statements of Metsäliitto, Stora Enso and UPM, and those in the Statistics Finland dataset give a very conflicting picture, especially for 2007, of the pulp and paper industry's profitability in the period prior to the current recession. The financial statements of the three major forest industry corporations show that the pulp and paper industry was profitable in 2007, whereas the Statistics Finland dataset indicates that the profitability of both Finnish-owned and foreign-owned pulp and paper industry units located in Finland had already slumped in 2007. The latter conclusion appears to represent a more realistic picture of the recent trend in the competitiveness of Finnish-based pulp and paper industry units, although there are also many uncertainties surrounding the figures. As in the analysis of the wood products industry, the measure of profitability used here is operating profit as a percentage of turnover (for Stora Enso and UPM) and EBIT as a percentage of turnover (for Metsäliitto and the Statistics Finland dataset).

There are a number of unanswered questions concerning the recovery in the forest industry's profitability, and these are related to the cost structure of both the wood products industry and the pulp and paper industry. Although the price of energy has been falling in 2009, there are so many uncertainties regarding energy taxation in the near future that could affect the competitiveness of the Finnish-based forest industry in different ways. Sea freight prices fell by a record amount in the first half of 2009, but the rise in crude oil prices has meant that the cost of sea transport has again risen in recent months. The costs of sea transport will probably rise further in the next few years as a result of sea transport emissions trading and tighter sulphur and nitrogen emissions limits, in both the wood products industry and the pulp and paper industry.