ECONOMIC COMMISSION FOR EUROPE

Timber Committee

FINLAND

October 2013

MARKET STATEMENT

1 GENERAL ECONOMIC TRENDS

Due to weak demand in main export areas and, especially, in the euro area, Finnish economy was declining 0.2 per cent in 2012. Although the poor economic performance and recession continued during the early months of this year, the turnover according to preliminary statistics was during the spring in 2013. While the growth of the Finnish economy in the second quarter of 2013 was still declining 1.2 per cent with respect to corresponding quarter of the previous year, there was 0.1 per cent growth in quarter-to-quarter terms. However, while the economy is anticipated to continue growing slowly during the rest of the year, the short-term outlook lays on several aspects which are highly uncertain.

The future outlook of Finnish economy is highly dependent on the development of international demand and, especially, the recovery of the euro area. The exports to the areas outside Europe are still growing, but the weak demand in the euro area and in countries such as Sweden and Russia, is expected to continue during the rest of the year, even though there are some positive signs of slow recovery in Europe. Also, the issues related to competitiveness are likely to limit the growth of export. Total export is anticipated to decline 0.3 per cent in 2013.

The domestic economic activity typically follows the development of exports with half-of-year lag. Thus, there are no signs for private consumption and investments to recover rapidly during the end of 2013. The development of private consumption in Finland is limited by increasing unemployment, tightening taxation and weak development of purchasing power. Also, the recent indicators reveal a low level of confidence in the economy and its future development among the households. The growth of private investments is restricted because of low level of new orders received by the Finnish industry. The low volume of new construction permits suggests that the total construction activity is decreasing during this year. Although the economy probably bottomed out in Finland after the summer, and is anticipated to start growing slowly during the rest of the year, the Finnish economy will decline by roughly half a per cent in 2013.

Thanks to the gradual revival of demand in key export markets, the total exports as well as private investments will recover in 2014. Due to the high unemployment and weak growth of purchasing power, the private consumption is expected to grow only moderately. The growth of government consumption remains low. Overall, the Finnish economy is predicted to expand by roughly 1.5 per cent in 2014.

2 RECENT POLICY MEASURES

In June 2013, the proposal of new Forest Act was sent to the Finnish Parliament for the statement. The ultimate aim of this proposal is that it gives more freedom for the forest owners to decide practical issues concerning fellings and regeneration of stands in a way that there are less forestry obligations in the new act. For example, under the new Forest Act it is possible to regenerate forests by so called continuous cover silviculture, that is, by thinning forests by single tree fellings of uneven ages. Also, the regeneration fellings are possible for younger age classes giving more alternatives with respect to the present act which allows regeneration fellings only for mature forests. To paraphrase the spirit of the present act, the new act forces to create new forest stands after the regeneration fellings as well, but it allows more freedom and alternatives for implementation. The new Forest Act should come to effect on 1.1.2014.

Along with the new Forest Act, a proposal for the new act concerning the operation of the Forest Management Association has accessed a parliamentary debate. According to this proposal, a Forest Management Association is able to provide, as now, forest management services related to the exercise for the forest owners. However, the actual business or commercial activities of the Association should be instead organized in a separate company. This separation is seen to be necessary for the management of business financial risks and transparency of operations. The new act should come to effect on 1.1.2015. The right of the Forest Management Association to collect forestry payments from the forest owners should be removed from 1.1.2014.

In January 2013, tax for the peat fuel increased from 1.9€ to 4.9€ per megawatt hour. The European Union regulations, which require equal energy treatment for renewable energy sources, however, had the effect that the subsidy for woodchips was decreased at the same time. The last mentioned actions together with low prices of coal and emission trading have increased remarkably the use of coal in combined heat and power plants (CHP) in the beginning of this year. Also, the general value added tax was increased to 24 per cent. In June, the new law concerning roundwood measurements was adopted. In September 2013, the new law on prevention of forest damages was given to Finnish Parliament for ratification.

In October 2013, the national regulation concerning transportation and heavy good vehicles was changed. According to the new regulations, the current fleet masses may be increased to 5–10 per cent of the five-year transitional period. For the most commonly used 8-axle vehicles the maximum weight is 64 tonnes. In addition, the introduction of new 9-axle vehicle types with a maximum weight of 76 tons can be utilized in timber transportations. Vehicle height can be 4.4 meters instead of current 4.2 meters height. In addition, it is possible to pilot even larger vehicles, for example, in forestry transportations.

The National Forest Programme (NFP 2015) states the general goals of the Finnish forest policy. The Ministry of Agriculture and Forestry is updating the Programme. The specific goals related to the forest biodiversity safeguarding are stated in the Forest Biodiversity Programme for Southern Finland, METSO 2008–2020. In METSO Programme, biodiversity conservation is based on voluntariness and compensation payments for landowners who will give their lands for protection.

The new act on energy subsidies for small-diameter trees is delayed and a renewed new application for the European Union is still waiting for the approval. The delay will hamper work to improve young stands and the harvesting and chipping of energy wood. The policy target is to increase the use of energy wood to 13.5 million cubic meters by 2020.

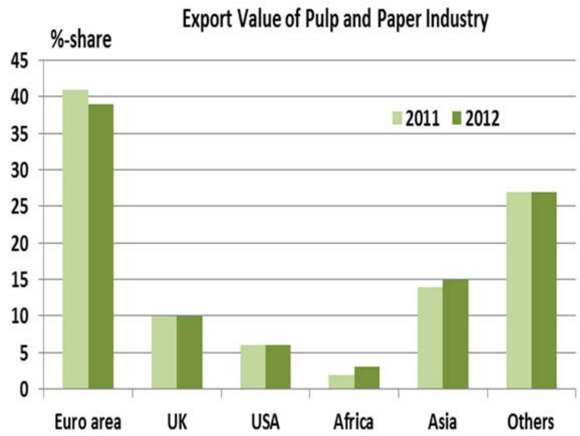
The Ministry of the Employment and the Economy launched a new strategic Programme for the forest sector in 2012. The Programme is processing and its key objective is to launch and implement change processes promoting forest sector competitiveness and renewal. A special program to promote wood construction in Finland is also related to the Programme.

3 MARKET DRIVERS

While most of the products manufactured by the Finnish forest industry are exported, the industry is highly dependent on the development and changes in international trade and demand in main export markets. Also, the development of exchange rates (USD, SEK, GBP, Yen, Rouble) with respect to euro is important for competitiveness not only outside Europe to promote exports but also inside the euro area when competing against the imports from outside Europe. In paper industry, about 90 per cent of production is exported, while in wood products industry the corresponding share is about 60 per cent. The most important export destinations are Europe, Asia, Near East and North Africa.

Overall, the production, exports and the export unit prices of the Finnish forest industry are increasing in 2013 thanks to the positive development at the start of the year, with the exception of paper. As the year draws to a close the demand for forest industry products will be supported by the end of the recession in the euro area. Next year, the growth of the production and exports of the forest industry will continue to be slow as the economy of the euro area gradually starts to revive.

In the wood products industry, it has been possible to compensate for the weak demand in Europe by increasing exports outside Europe to the markets in Asia and the Middle East. The exported amounts and export unit prices of both sawnwood and plywood are increasing in 2013. The demand for pulp on the global market as well as the growth in demand for packaging materials is increasing the production and export of paperboard and pulp. The export unit prices are also increasing. In contrast, the demand for paper in the main market area, the euro area, continues to fall, causing a decline in Finnish paper production, exports and export prices.



Sources: National Board of Customs and FFRI

In 2014, the production of sawnwood is likely to increase slightly thanks to domestic construction and the slowly increasing demand in the euro area. The production and exports of plywood, paperboard and pulp will also increase slightly. In paper markets, the demand continues to decrease and Finnish production and exports of paper will go down also in next year.

Russia's recent membership in the World Trade Organisation (WTO) improved Finnish forest industry access to the growing Russian market. Especially, after the gelling of administration issues related to customs clearance procedures the roundwood imports will increase. The most important imported timber assortment is birch pulpwood which complements the domestic scarce supply.

4. DEVELOPMENT IN FOREST PRODUCTS MARKETS

A. Raw wood

In 2012, the use of industrial roundwood decreased slightly below 53 million cubic meters (m^3) under bark (u.b) compared to the previous year. The roundwood procurement decreased accordingly. The domestic roundwood procurement was 45 million m^3 u.b. and imports of roundwood and sawmills chips were 9 million m^3 u.b. in 2012.

In 2012, Finnish roundwood markets became less volatile, which can be interpreted by reaching a new steady state after several economic shocks of previous years, starting from the end of forest tax reform in 2005. The traded volumes from private, non-industrial forests were 11 per cent greater than those of the year 2011. However, nominal softwood log prices were down by 3–5 per cent from the previous year. Nominal pulpwood prices decreased 2–7 per cent.

The statistics for the domestic roundwood harvests from January–August 2013 show that the harvesting of logs increased by 3 per cent and the harvesting of pulpwood by 6 per cent from the previous year. During the first half of the year, wood imports increased by a quarter with respect to 2012. Especially, imports of birch pulpwood have been growing strongly indicating that the WTO membership of Russia is starting to promote the roundwood imports.

Overall, the industrial roundwood consumption in Finland is estimated to increase to 55 million m^3 u.b. in 2013. Domestic roundwood removals will account close to 47 million m^3 u.b. in 2013. Imports of roundwood and wood chips are estimated to increase to 10 million m^3 u.b. which is 16 per cent more than the last year's volume.

Roundwood removals in 2014 are forecasted to remain on the same level (47 million m^3 u.b.) as the estimate for the current year. Removals of coniferous sawlogs and pulpwood will be about 19 and 20 million m^3 u.b., respectively. Roundwood imports, including wood chips, are expected to rise about 10 per cent to 11 million m^3 u.b. The industrial roundwood consumption in total is forecasted to increase to 56 million m^3 u.b.

B. Wood energy

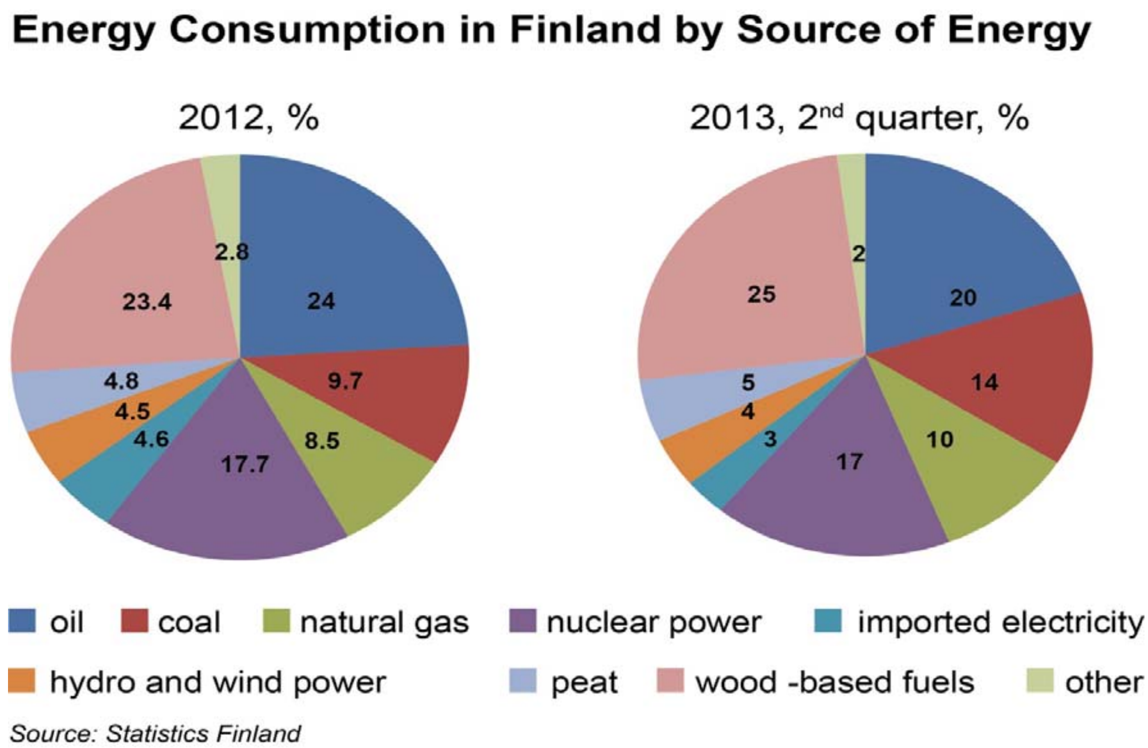
According the decision of European Commission Finland should produce 38 per cent of its consumed energy from renewable sources by 2020. In this respect, the role of forests is important as currently about 80 per cent of the bioenergy production in Finland is based on wood. Wood based energy accounts for 23 per cent of all energy consumed in Finland and 80 per cent of the Finnish forest industry´s energy consumption (black liquor from the pulp industry, tree bark, sawdust, etc.). Meeting the 2020 goals depends much on the wood processing industry.

The target for 2020 in Finland is to consume 13.5 million cubic meters (m^3) of forest chips annually. In 2012 forest chips were consumed 8.3 million m^3 of which 7.6 million m^3 went to heating and power plants and the amount increased 11 per cent with respect to 2011. Small diameter trees are by far the most important raw material source for forest chips in Finland (47 per cent in 2012). Logging residues account for 34 per cent of raw material, stumps 14 and stem wood 5 per cent. The use of forest chips is estimated to grow further to 8.9 million m^3 in 2013 and to 9.6 million m^3 in 2014.

The annual pellet production in Finland is about 270 000 tons, and it is estimated to remain in that level also in 2014. Domestic consumption is about 200 000 tons.

The emission trade has a strong influence on the competitiveness of wood-based fuels and their use in energy plants. Increasing the proportion of wood-based fuels is very difficult at the current price level of the EU emission allowances (around 5 €/t CO_2). A strong increase in the use of wood-based fuels would require a price level of over 25 €/t CO_2 of emission allowances before the forest biomass can compete against coal with recent prices, taxes and/or subsides. The other challenge is directive on renewable energy sources (RES), which will increase the costs of energy wood supply chains.

The Finnish government aims to increase the use of bio-based fuels in transport sector from the current level (6 per cent in 2011) to 20 per cent by 2020. In bioenergy markets, changes in taxes, subsides and regulations have fast and strong influence on the use of renewable energy sources. In European Union there are several directives under preparing concerning the use of solid and gaseous biomass in energy production. The uncertainties concerning the final form of the directives together with emission trading are delaying investments decisions and complicate future planning. Finland has also received funding from NER300 program, but the investment decisions are still under consideration. However, in Finland there has been put several quite big size combined heat and power plants (CHP) using forest biomass into operation in 2013. In addition, there have been reconstructions in old plants so that they can use more forest biomass. Also, there are few other investment plans of new biofuel plants in Finland.



C. Certified forest products

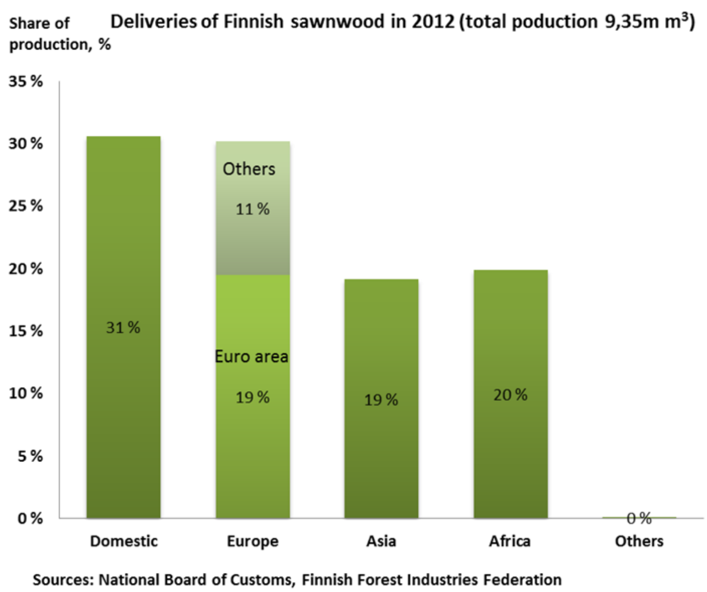
Currently, about 95 per cent of Finnish forests, or 20.75 million hectares, are certified under the system endorsed by international Programme for the Endorsement of Forest Certification schemes (PEFC). Certificate holders are 13 regional forest owner associations and one group certificate holder. After introducing the Finnish certification standard in 2011, the forest area certified under Forest Stewardship Council (FSC) scheme has already increased to 432 thousand hectares. This is mostly due to one certificate holder; the Finnish forest company UPM, which has certified about half of its current holdings in Finland. Anyhow, a number of forest management companies have made FSC group certificates open for all forest owners. Taking account the wide coverage of PEFC certification, the introduction of FSC certificate entails double certification.

The use of forest certification labels is gradually growing. Currently 340 Finnish companies have PEFC Chain of Custody (CoC) certificates. The respective number of FSC CoC certificates is 110. In PEFC primary wood companies are more widely presented. The numbers of certified products is far higher, but they are distributed similarly in both certification schemes; about half of the certificated products are directly connected to pulp and paper or printing. End user oriented wood manufacturing and construction play still a minor role in CoC certificates.

D. Value-added wood products

E. Sawn softwood

Coniferous sawnwood accounts for over 99 per cent of the sawnwood production in Finland. The production volume of hardwood sawnwood, 50 000 m^3 in 2011, is marginal and it has been declining since the early 2000's. The Finnish sawmilling industry is highly export oriented, and the importance of exports has grown during the recent years. Economic slowdown has affected construction industry heavily in Finland, and in 2012, the deliveries of sawnwood to domestic market dropped to 31 per cent of the total production. The main export market area for Finnish sawnwood has traditionally been Europe. Yet due to recent sluggish demand for and occasional oversupply of sawnwood especially in the euro area, Finnish producers have sought for new market opportunities outside Europe in North Africa, Middle East and Asia. In 2012, Egypt and Japan were the largest destination countries for Finnish sawnwood exports with year-to-year export growth rates of 29 and 9 per cent, respectively. High growth rates were also reported for sawnwood exports to China, Algeria, Saudi-Arabia and Israel, whereas exports to European countries were diminishing. Overall, Finnish sawnwood exports grew by 5 per cent in 2012. However, due to the weakening domestic demand, the total production of sawnwood was reduced by 4 per cent.



Outlook for years 2013 and 2014

The first half of year 2013 was brisk in the Finnish sawmilling industry as the production of sawnwood grew by 5 per cent and exports by 10 per cent in year-to-year terms. However, the rapid increase in demand in certain export market areas has been considered seasonal and attributable to fulfilling low sawnwood stocks in Central Europe, for example. Overall, in Europe, the activity in the construction business is still low in 2013, while some recovery is anticipated to happen in 2014. Hence, sawnwood exports to Europe as a whole have shown a decreasing trend during the first half of 2013, yet also increases have taken place in some destination countries such as in Germany. Growth figures for sawnwood exports to markets outside Europe have, in turn, been considerable.

In the first half of 2013, sawnwood exports to China grew about 200 per cent and to Japan 50 per cent. High growth rates were also reported for sawnwood exports to Middle East. Along with the increasing export volumes, the development of unit value of sawnwood exports to Asian markets has been positive as well. However, in North Africa and especially in Egypt, market situation is uncertain due to civil unrest.

Finnish sawnwood exports by 10 largest destination countries in 2012

Country	1000 m^3	Share of total exports	Change in export volume 2011/2012
Egypt	1020	16 %	29 %
Japan	785	12 %	9 %
UK	662	10 %	-4 %
France	570	9 %	-1 %
Algeria	459	7 %	12 %
Germany	457	7 %	-1 %
Israel	361	6 %	9 %
Saudi-Arabia	352	5 %	11 %
Netherlands	216	3 %	-16 %
China	171	3 %	36 %
Others	1398	22 %	-2 %
Total	6451	100 %	5 %

Source: National board of Customs

In China, the demand for sawnwood has been maintained through the country's GDP growth. However, also the fact that Canadian sawnwood trade has turned to satisfy the growing demand of sawnwood in the United States has contributed to the growth of Chinese imports from European countries such as Finland. During the rest of the year 2013, no large improvements are expected in the demand for sawnwood in Europe, but demand outside Europe will continue strong. In 2013, the exports of Finnish sawnwood are anticipated to increase by 9 per cent, and export unit prices by roughly 2 per cent for the full year. In Finland, the decline in construction lowers the demand for sawnwood, but thanks to good export performance the production of sawnwood is forecast to grow in 2013 by 4 per cent, to 9.7 million m^3.

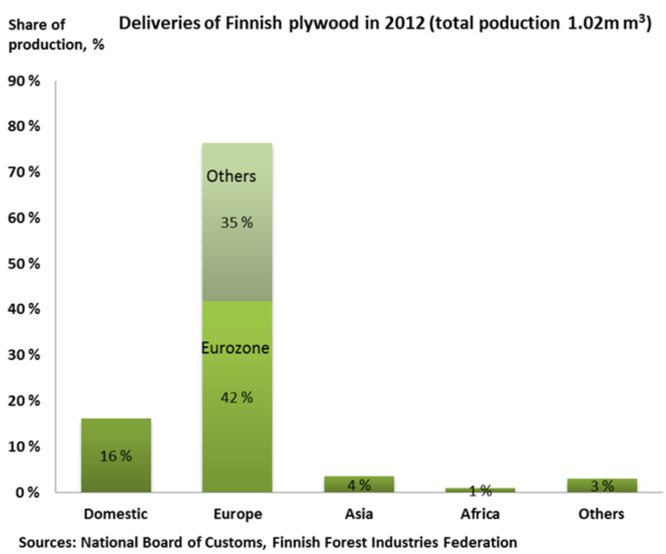
In 2014, the production of sawnwood will increase to 9.9 million m^3 thanks to the slowly increasing demand in the euro area. In Asia the demand for sawnwood is expected to slow down slightly. However, the rise in demand for sawnwood in Europe will compensate the slowdown in Asia. In North Africa, the market situation will remain uncertain. The mild growth in Finnish construction plays its part in increasing the demand for sawnwood. In 2014, production and export of sawnwood will increase by one per cent and export unit prices by a few per cent at annual level.

F. Sawn hardwood

Sawn hardwood is a marginal product in Finnish sawnwood industry with a share of about 0.5 per cent of the total sawnwood production.

G. Wood-based panels

In Finland, production of plywood currently accounts for over 80 per cent of the production and over 90 per cent of the exports of wood-based panels. The remaining 20 per cent of total production is divided in half between particle board and fibreboard, the production of which is predominantly directed to domestic market. Of the plywood production (1.02 million m^3), 84 per cent was exported in 2012. The main export market area is Europe, while the markets outside Europe play a smaller role compared to the exports of sawnwood. About 70 per cent of plywood production is coniferous plywood and the remaining 30 per cent hardwood (birch) plywood. Coniferous plywood is almost exclusively exported to Europe. In the case of birch plywood large quantities are also exported to Asia and especially to South Korea for shipbuilding purposes. However, the main export market area for birch plywood is also Europe. As the main use of coniferous plywood is in construction of buildings, birch plywood is often used in more demanding applications in transport industry, for example. Production of birch plywood in Finland has been dependent on the birch sawlog (veneer log) imports from Russia as the domestic supply of birch sawlogs has been inadequate to meet the demand by the plywood industry. The imports of birch sawlogs collapsed after 2008, the year of the implementation of higher custom duties for birch sawlogs exports from Russia. Simultaneously, the production of birch plywood nearly halved in Finland. As Russia became member of the WTO in august 2012, the export duty on birch sawlogs decreased markedly. As a result, in the first half of 2013, the import volumes of birch sawlogs from Russia have grown over 50 per cent in year-to-year terms.



Outlook for years 2013 and 2014

In the first half of 2013, the production of plywood has grown 5 per cent and the exports of plywood 9 per cent year-over-year. Thus, the positive development in the Finnish plywood industry is comparable to the development in the Finnish sawmilling industry. However, the export prices of plywood were slightly decreasing, yet this trend is anticipated to change in the second half of 2013. Exports to Europe are assisted by the dearth in the supply of plywood, with several other competitor countries directing their export into the growing United States market, and Russia consuming an increasingly large share of its own production. During the second half of 2013, the growth in export volumes is expected to slow down slightly, and for the whole year of 2013 the growth rate for Finnish plywood exports is projected to be 4 per cent. The production of plywood is also forecast to grow by 4 per cent. In 2014 the growth in Finnish plywood exports is expected to continue, as construction industry in Europe will slowly recover. However, the growth rate in 2014 will be slower than in 2013 about 1–2 per cent year-over-year.

Finnish plywood exports by 10 largest destination countries in 2012

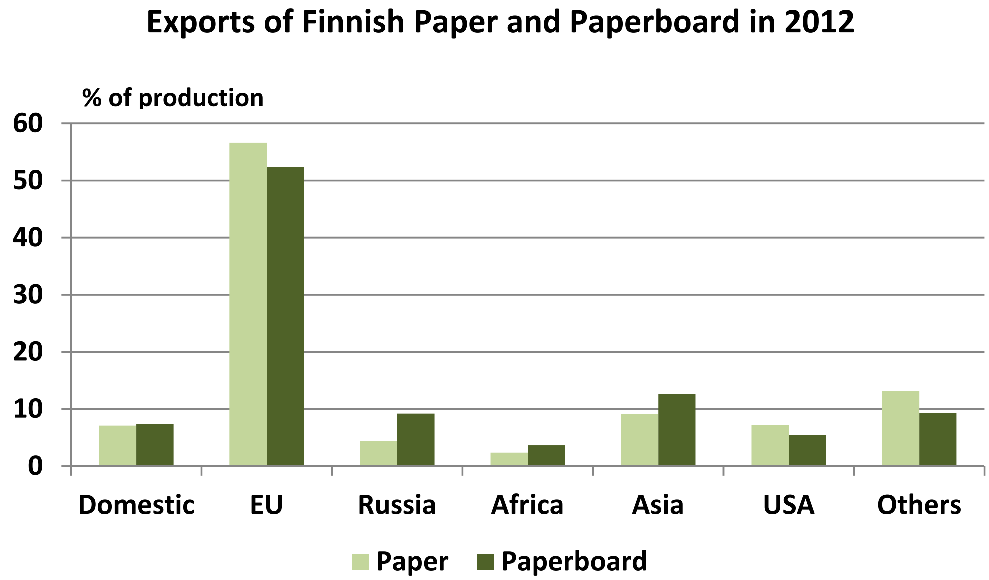
Country	1000 m^3	Share of total exports	Change in export volume 2011/2012
Germany	178	21 %	3 %
UK	150	18 %	-13 %
Netherlands	107	12 %	-15 %
Sweden	65	8 %	-3 %
France	54	6 %	-11 %
Denmark	44	5 %	8 %
Italy	41	5 %	56 %
Norway	35	4 %	33 %
USA	23	3 %	-9 %
Poland	20	2 %	-23 %
Others	139	16 %	15 %
Total	855	100 %	-1 %

Source: National board of Customs

H. Pulp and paper

In 2012, Finnish production and exports of paper continued to decline. The total production was 7.9 million tonnes of paper, which was 8 per cent less with respect to the previous year. Paper exports also declined by 7 per cent in comparison to 2011. These declines were due to poor demand for paper in the world market. The trends, however, were quite different for pulp and paperboard. Pulp production in 2012 was 10.2 million tonnes, of which two thirds was chemical pulp. Overall, pulp production in 2012 was one per cent less than in 2011, but the production volume of chemical pulp increased. Pulp exports increased by 6 per cent in 2012 reaching 2.6 million tonnes. While most of the pulp exports consist of chemical pulp, the upturn in exports of mechanical pulp was particularly strong as it almost doubled. Production of paperboard was 2.8 million tonnes in 2012, one per cent more than in 2011. Exports of paperboard also increased by one per cent to 2.6 million tonnes. Overall, the Finnish pulp and paper industry exports most of its production. The exception is pulp, of which 65 per cent is used domestically. In contrast, 93 per cent of production of both paper and paperboard is exported, mostly within the European Union.

The developments for export prices were the opposite of the development of production volumes in 2012. The export prices of pulp continued to decrease by 10 per cent in 2012 as well as the export prices of paperboard which declined only by one per cent. By contrast, the export prices of paper increased by 6 per cent.



Sources: Finnish Forest Industries Federation and National Board of Customs

Outlook for 2013 and 2014

The outlook for Finnish pulp and paperboard for 2013 and 2014 looks rather positive. The demand for pulp on the global markets as well as the growth in demand for packaging material is increasing the Finnish production and exports of pulp and paperboard. The production of chemical pulp is estimated to increase 2–3 per cent both in 2013 and 2014, while the production of mechanical pulp declines. The export of pulp is assessed to increase by 2 per cent in 2013 and one per cent in 2014. The export prices of pulp will also increase slightly following rather steady market demand. For paperboard, the worldwide demand is increasing so strongly that the outlook is even more positive. Paperboard production is evaluated to increase by 5 per cent in 2013 and by a further 4 per cent in 2014 to reach 3.0 million tonnes. The exports of paperboard will also increase by 5 per cent in 2013 and by 4 per cent in 2014, driven by the growth of international demand. The export prices of paperboard will increase more moderately, by 2 per cent in both 2013 and 2014.

By contrast, the outlook for paper industry looks bleak. The demand for printing and writing paper will decrease further, as the structural change involving replacement of paper by electronic media is emphasised by the recession. In order to accommodate this, paper production in Finland is evaluated to fall in 2013 by 5 per cent and by 4 in 2014 to 7.3 million tonnes. Paper exports will also fall by 5 per cent in both 2013 and 2014. The exports volumes in 2014 will be around 6.7 million tonnes. The outlook for paper export prices looks a little more positive, as it should only decrease by one per cent in 2013 and 2014. This is the result of numerous capacity closures in the important European market, which will reduce overcapacity.

A. Economic Indicators

Key economic indicators	2012	2013f	2014f
Gross domestic product growth, %	-0.8	-0.4	1.6
Consumer price index change, %	2.8	1.7	1.7
Wage and salary earnings change, %	3.3	2.4	1.3
Unemployment rate, %	7.7	8.2	8.2
Current account surplus/GDP, %	-1.9	-0.8	-0.1
Industrial output change, %	-2.4	-2.4	3.1
Three month EURIBOR, %	0.6	0.3	0.5

Source: The Research Institute of the Finnish Economy 25.9.2013

B. Production and Trade

1. Forest Industry Production in Finland

Product	Unit 1000	2011	2012	2013e	2014f
Sawn softwood	cum	9 700	9 350	9 700	9900
Plywood	cum	1 010	1 020	1 100	1120
Particle board	cum	170	100	100	100
Fibreboard	cum	100	100	89	89
Mechanical pulp	tonnes	3 614	3 409	3 200	3040
Chemical pulp	tonnes	6 748	6820	7030	7170
Pulp, total	tonnes	10 362	10229	10230	10210
Paper, total	tonnes	8 602	7940	7550	7250
Paperboard	tonnes	2 726	2760	2900	3020
Paper & Paperboard total	tonnes	11 329	10700	10450	10270

Sources: Finnish Forest Industries Federation (2011–2012; wood products 2013)
Finnish Forest Research Institute (wood products 2014, pulp and paper 2013–2014)

2. Exports of Finnish Forest Industry Products

Product	Unit 1000	2011	2012	2013e	2014f
Sawn softwood	cum	6 101	6435	7 000	7 100
Plywood	cum	863	854	950	970
Particle board	cum	86	26	20	20
Fibreboard	cum	50	47	47	47
Mechanical pulp	tonnes	125	229	220	230
Chemical pulp	tonnes	2 350	2387	2430	2460
Pulp, total	tonnes	2 475	2616	2 650	2 690
Paper, total	tonnes	7 971	7377	7010	6660
Paperboard	tonnes	2 529	2555	2680	2790
Paper & Paperboard, total	tonnes	10 500	9932	9 690	9 450

Sources: National Board of Customs (2011–2012),
Finnish Forest Industries Federation (wood products 2013),
Finnish Forest Research Institute (wood products 2014, pulp and paper 2013–2014).

3. Imports of Forest Industry Products

Product	Unit 1000	2011	2012	2013e	2014f
Sawn softwood	cum	462	430	500	500
Plywood	cum	122	111	100	100
Particle board	cum	85	106	100	100
Fibreboard	cum	195	178	170	170
Pulp, total	tonnes	473	553	570	580
Paper, total	tonnes	239	226	230	220
Paperboard	tonnes	238	232	230	230
Paper & Paperboard, total	tonnes	477	458	460	450

Sources: National Board of Customs (2011–2012),
Finnish Forest Industries Federation (wood products 2013),
Finnish Forest Research Institute (wood products 2014, pulp and paper 2013–2014).