

Market Statement 2014

SWEDEN

UNECE Timber Committee Market Discussion 22 November 2014

1 General Economic Trends

The prolonged economic slump is continuing, and recovery is taking time. There are some signs of growth gaining momentum, driven by a strong pick-up in private investment and consumption. The NIER forecast overall growth in GDP of 1.8% in 2014, increasing to 3.1% in 2015. This is expected to have a significant effect on housing and construction. But slow upturn in exports is contributing to a continued decline in industrial output this year. In 2015, when external demand anticipated to grow more quickly, exports is expected to rise and industrial production to rebound. Total investment in the economy is likely to increase due to major need for investment in the public sector especially there is potential for higher residential construction production, which will probably continue to grow rapidly in 2014 and 2015. Unemployment will remain high throughout 2014, it is projected to fall in 2015. The labour force is likely to expand more slowly in the coming years, due partly to the effects of previous labour market reforms wearing off, and unemployment will probably drop in 2017 and 2018.

Macroeconomic Scenario and Economic Policy through 2018

Fiscal policy is likely to be tightened in the coming years, which means that monetary policy will be central in supporting domestic demand. Economic activity is continuing to improve but inflation is too low. In October 2014 the Executive Board of the Riksbank decided that monetary policy needs to be even more expansionary for inflation to rise towards the target of 2 per cent. The Board therefore cut the repo rate by 0.25 percentage points to zero per cent, and making a significant downward revision to the repo-rate path. The repo rate is expected to remain low and so help the economy to return to full capacity in 2017. The monetary policy is expected to address central issues on unemployment, policy interest rates labour market and household debts. NIER forecast that Swedish krona to appreciate in real terms by some 4 percent in 2014-2018.

2 Economic stimulus policies and forest products markets

Green economy (priorities a wide range of drivers in the forest sector in energy, climate change, industry, innovation and governance)

Economic stimulus efforts are providing short-term support that directly or indirectly affect the forestry sector. National and international energy and climate policies will likely have longer term effect on the forestry sector. Sweden's energy policy rests on three cornerstones: secure energy supply, economic competitiveness and ecological sustainability. In an increasingly globalised world, where global value chains are becoming increasingly

dominant, international factors are coming to play a growing role in the design of the energy system and the energy policy. A roadmap for a green transition in Sweden is something much wider than just sector policies and R&D support. It includes an active policy to speed up the international community's commitment, continuous and strong usage of economic domestic tools like green taxation long-term stimulus to green entrepreneurship, and a socially inclusive policy to protect those who lose out from the green transformation.

Sweden has made further progress towards its long-term goal of an economy based on sustainable energy, and today is among the leading countries in terms of low-carbon intensity and high share of renewable energy in total energy supply, with strong growth coming from solid biofuels and biomass. This is the result of continuous political efforts: a stringent carbon dioxide and energy taxation, emissions trading and the promotion of renewable energies under the electricity taxation, emissions trading and the promotion of renewable energies under the electricity certificate system.

In 2009, ambitious new targets were adopted under the “integrated climate and energy policy” framework. They support and even go beyond European Union and international obligations and require by 2020: i) the reduction of energy intensity by 20%; ii) a share of at least 50% renewable energy in gross final consumption and 10% in transport, and iii) a reduction of GHG emissions by 40%, two-thirds of which are to be implemented by domestic measures outside the EU Emissions Trading Scheme and the remainder by EU and international efforts.

For the longer term, Sweden put forward two ambitious priorities: i) a fossil fuel-independent vehicle fleet by 2030, and ii) zero net greenhouse gas (GHG) emissions by 2050.

New Governments Budget Bill for 2015¹

Increased resources for forest protection and for recent forest fire

On 23 October the Government submitted its proposal for the central government budget for 2015 to the Parliament. The Government is investing around SEK 25 billion in 2015 in reforms for more jobs, better results in schools, a better environment and a sustainable climate as well as reforms to protect the Swedish model.

The new government proposes more funds for the forest protection. SEK 740 million in 2015 and SEK 690 million in 2016. The Government also proposes SEK 28 million in 2014 and SEK 27 million in 2015 for action in response to the forest fire in Västmanland County. A special forest fire support to be introduced for affected forest owners in the area. Extra resources at SEK 8 million in 2014 and SEK 8 million in 2015 for the increased need for consulting and information from the authorities for the forest fire.

¹ The proposed budget bill for 2015 is [subject to parliamentary approval](#).

Recent policy measures

Biobased economy

The development of a biobased economy is put forward as an overarching objective for agriculture, forestry and rural development by the new Swedish government. Policy measures in this regard should contribute towards job creation, growth and welfare in the whole Sweden. Forests greatly contribute to a low carbon society and the sustainable use of forests continue to be based on the coequal objectives of environment and production.

National Forest Programme (NFP) in policy planning

In 2013 the Swedish government decided that a national forest program (NFP) process should be started in Sweden. The NFP will build on the principles agreed within the Forest Europe process (previously the Ministerial Conference for the Protection of Forests in Europe, MCPFE) and cover the whole value chain. Currently we are in the start-up phase of establishing the dialogue process with a broad range of stakeholders.

Policy measures affecting the use of energy by industry

The most important policy measures affecting the industrial sector are energy and carbon taxes, together with the EU Emissions Trading System for trading emission rights. Other policy measures that affect industry include the Programme for Electrically Intensive Industry (PFE), the electricity certificate system, the environment framework code and energy audit checks.

Increased production and lower emissions

Over the last 20 years, the production of pulp and paper has increased while emissions into the air and the water have decreased significantly. This 'decoupling' of growth from environmental impact is the result of major investments in process changes and purification equipment. The need for electrical energy has however increased, mainly because the mills are making more and more refined products. The production of renewable electrical energy is increasing in the manufacturing units.

The international land and forestry tenure facility

Swedish International Development Cooperation Agency is funding more than SEK 100 million during the period 2014-2017.

Government stimulus: ROT

The tax deduction on labour work repair, renovation, extension and maintenance on houses (ROT) excluding material passed by Parliament on (May 13, 2009) is still applying. The ROT deduction also serves to reduce energy use through covering a number of measures for saving energy. The measures mitigate the effects of the economic crisis and improve the conditions for a gradual recovery of construction sector. The ROT deduction measure is also a part of the government's efforts to enhance labour market policies, reduce illegal employment and improving demand in the construction sector. Swedish Tax Agency office paid SEK 14.1 billion in 2013 for tax reduction for ROT. There was a decline by 3 percent in 2013 compared to 2012. This gave some net revenue to the treasury through VAT, payroll taxes

and employee and cooperate taxes and increased employment. ROT has had a positive effect on the domestic demand of sawn wood.

According Prognoscentret the increased construction activity (new construction and ROT) is forecast to generate an increase in timber consumption by about 140 000 cubic meters, or 5 percent this year.

Rural Development Programme (RDP) 2014-2020

The European Commission has adopted a "Partnership Agreement" with Sweden setting down the strategy for the optimal use of European Structural and Investment Funds throughout the country. Today's agreement paves the way for investing €2.1 billion in total Cohesion Policy funding (from the European Social Fund and the European Regional Development Fund) over 2014-2020 (current prices, including European Territorial Cooperation funding and the allocation for the Youth Employment Initiative). Sweden also receives close to €1,763 million for rural development and €120 million for fisheries and the maritime sector. The EU investments will help tackle unemployment, boost competitiveness and economic growth through support to innovation, training and education in cities, towns, rural and coastal areas. They will also promote entrepreneurship, fight social exclusion and help to develop an environmentally friendly and a resource-efficient economy.

The total budget for the forestry in RDP for the period 2014 - 2020 is some SEK 280 million. The three forestry support is included; i) skills development, ii) forest environmental values and iii) way of cooperation. Support for training and advice has a budget of some SEK 100 million and focuses on efforts that contribute to sustainable forest management, including forest's impact on water, prevent the effects of climate change and reducing the environmental impact of the forest. In support of the environmental values of forests the budget amounts to some SEK100 million are as measures to thinning for broadleaved and deciduous forests, management of natural and cultural values in management-intensive stocks and clearing around paths and trails. Within collaborative support with a budget of SEK 80 million is planned collaboration on forest roads, for example, limits in forest, wildlife management and adaptive forest management. In addition there is a further support, "Prevention and restoration of damage to forests" without a set budget. It's a "backup support" that can be activated on special occasions, such as in forest fires and natural disasters.

Wood products in green buildings

Building houses – even high ones – in wood is one way of enabling dwellings that strike a better balance with the environment and the climate. The construction of multi-storey buildings in wood has increased rapidly in the 21st century in Sweden. These successes are based on industrial construction in wood, where Sweden is among the front runners in Europe. The new building methods mean that most of the construction process takes place indoors in factories. The time saving may be up to 80 percent and the cost benefits are substantial. With its economic and environmental advantages, industrial construction in wood has started to challenge traditional building methods.

Lifecycle analyses show better results for wood-framed houses compared to other materials. The Swedish Green Building Council programmes and code development include Leadership in Energy and Environmental Design (LEED) green building standard and Building Research

Establishment's Environmental Assessment Method (BREEAM). More and more companies and organisations are demanding information on the quantities of fossil carbon dioxide created by different products, their "carbon footprints".

The Energy Performance of Buildings Directive governs, amongst other things, minimum requirements for energy performance in buildings and the requirement that energy declarations are performed. This directive has been introduced into Swedish legislation through the Swedish National Board of Housing, Building and Planning's building regulations. The directive also requires all buildings to be nearly zero-energy buildings from 31 December 2020. The individual member states decide themselves which level the energy use will be in order to be classed as nearly zero-energy buildings.

Trade policy issues affecting forest products markets

European Union Timber regulation

The European Union Timber Regulation (EUTR), which became effective on 3 March 2013, is intended to prevent the entry of illegally logged wood into the 27 EU Member States. The Regulation prohibits placing on the EU market wood and wood products illegally harvested and obligate operators to exercise due diligence and use a due diligence system. Operators can develop their own system or use one developed by a monitoring organization. The Member States are responsible for laying down effective and dissuasive penalties applicable to infringements. Competent authority shall carry out checks on operators and monitoring organisations to verify compliance with the requirements in EUTR.

The Swedish Forest Agency (SFA) is assigned to be the competent authority for EUTR implementation in Sweden. Since the first of August 2014 Sweden has a national legislation laying down rules concerning infringements of the provisions of the regulation and rules on carrying out checks on operators by the competent authority. SFA has in autumn 2013 started the process on carrying out checks on operators importing timber and timber products. The checks were voluntarily, as national legislation was not in place, in the beginning but since August 2014 the SFA is conducting thorough checks on operators importing timber and timber products. So far around 30 checks has been conducted in total. Checks on operators placing harvested timber from Swedish forests has also started and are integrated and coordinated with ordinary supervision against Swedish forest owners.

Corporate Social Responsibility (CSR)

CSR has been strong driving force within the forest sector for several years. The interest is primarily demonstrated through the involvement in FSC and PEFC forest certification schemes. The involvement appears stable over time. Swedish global pulp, paper, and packaging producers often include sustainable forestry among the CSR activities are also mentioned in financial and sustainability reports.

Renewable energy policies and their impacts on forest products markets

Most important for the on-going replacement of fossil fuels with bioenergy are the carbon dioxide tax and the renewable electricity certificate system. Because by-products from the forest and forest industry are the main source of bioenergy, the demand rather strengthens the supply side as it is improving the marginal profitability of forestry. So far, raw material competition between the energy sector and the traditional forest industry has been limited to wood from thinning operations within the vicinity of large heat-and-power plants.

Impacts of carbon markets

There is no national market scheme in Sweden where forest owners may sell carbon credits from carbon sequestration in Swedish forests. There is concerns that such payments, in the long-term perspective, could be counterproductive for climate mitigation due to reduced removal resulting in lowered substitution rates in the longer term. Carbon markets where forest estate owners acts as sellers of carbon credits would also bring high monitoring, transaction and administrative costs, undermining the profitability and hence the incentive of carbon sequestration actions.

While the LULUCF sector features extensive flows of carbon, allowing the LULUCF sector to contribute to economy-wide mitigation targets through trade with carbon credits raise several questions, i.a. to what extent emissions from fossil fuels will be reduced, how permanence of removals are ensured, accuracy of the monitoring of carbon flows, etc.

Green Climate Fund

The government has announced plans to provide SEK 500 million to the UN's Green Climate Fund in 2015, and overall, with SEK 4 billion for the four year period from 2015 to 2018. The SEK 500 million is said to be new and additional.

Research and Development

Sweden has strategically aligned energy-related RD&D policies with its energy and climate objectives. These are strongly geared towards market deployment and build on the country's comparative strength, including smart grids and biofuels. Innovation and business sector commitment are a key factor for the success of the Swedish energy RD&D policy. Since 2009, co-financing from industry has been increasing, especially in demonstration. This is the result of the strong involvement of the private sector and academia in the formulation of the strategic plans, by means of the Energy R&D Board and its technology platforms and stable public support.

Every four years, the Government presents a research and innovation bill that deals with the Government's priorities for the following four year period. In September 2012 the Government presented its new research and innovation bill, which will contain priorities for the period 2013-2016. The bill was presented during the autumn 2012. With this bill the Government increased its support for research and innovation by 4 billion SEK, coming into full effect by 2016. Specially, the increase in resources will focus on four strategic areas. A common theme is to prioritize research/innovations leading to new products and services. Forestry interest/commitment focus is in four main areas

- Energy
- Sustainable use of natural resources
- Effects on natural resources, ecosystem services and biodiversity
- Climate models

The research council Formas will fund 75 million SEK (25 million SEK per year for three years, 2015-2017) for research and development projects within sustainable primary production of forest raw materials and biomass, where the biomass may come from forestry, agriculture or aquaculture.

The overall aim of the initiative is to produce new knowledge that will contribute to the development of sustainable production of renewable biomass. The initiative is also intended to strengthen Swedish research in the area and increase the collaboration between academia, industry and society.

Bioenergy

Significant funding is being channeled via the Energy Agency. The Swedish Energy Agency supports research and development on the supply, conversion, distribution and use of energy. Assistance is also provided to development of new technologies

Program Strategic Energy Research for the period 2014-2018 representing a major cohesive focus on research in the field of "energy" studies. In the field of "energy studies" encompasses many of the interdisciplinary and multidisciplinary efforts made by the Energy Authority. The program covers the period 2014-2018, with a total budget of about SEK 130 million.

In addition, the program has the vision through knowledge building, scenarios and perspectives contribute to the achievement of the 2050 target - a Sweden with no net emissions of greenhouse gases - and the objectives and targets contained therein e.g. generation goal for environment, environmental quality objectives, and the Energy Policy Objectives for 2020 and by 2030.

Future Forests - Sustainable Strategies under Uncertainty and Risk

The research program will generate new knowledge within several important areas where critical information for a sustainable development of forests and forestry in Sweden is missing, or is incomplete. These areas include adaptations and mitigations to climate change, water quality, nutrient cycling, and biodiversity. The funding applied for by future forests program for the period 2013-2015 is 126 million SEK.

National strategy for bioeconomy

The research institutions Formas, together with Vinnova and the Energy Agency, has jointly submitted a proposal for a research and innovation strategy for a biobased national economy. The objective is to reduce the climatic impact and use of fossil raw materials and to optimise the value of ecosystem services and their contribution to the economy. The priority principal

areas 1) Replacement of fossil raw materials by biobased raw materials, 2) Smarter products and smarter use of raw materials, 3) Changed consumption patterns and attitudes, 4) Prioritisation of, and a choice between, measures. Research will be complemented by inputs that promote innovation and measures that specifically deal with the challenges of bioeconomy

VINNOVA, the Swedish innovation agency granted the Swedish Forest Industry Federation (SFIF) 500 000 SEK for a new project on the future of bio-based products. The project aim is to better match users' and consumers' needs with research advances that are constantly being made. Developing new materials and products based on renewable raw materials to meet Sweden's transition to a bio-based economy. This will help one step closer to SFIF vision to double the value added in 2035.

Forest Fire

The research council Formas is funding 15 million SEK (5 million SEK per year 2014-2016) for research activities related to the large forest fire in the Västmanland County. The fire in Västmanland County is described as one of the largest in Sweden in modern times and the fire has required significant efforts at local, regional and national level. There is a great need for research efforts to collect and analyze materials and data on the fire and its consequences.

3 Market drivers

Sweden is an export-oriented and export-dependent as more than 80 % of sawnwood, paper and pulp production is exported. . A main driver for wood products is demand in the construction sector. This sector has declined in recent years. Factors frequently cited as drivers of change with regard to long-term global demand for wood products are: economic development; demographics; scientific and technological developments; globalization; global climate change; policies, regulations and customer preferences linked to climate change; environmental policies and regulations other than those linked to climate change

The increased focus on wood as a renewable and climate friendly solution represents an opportunity for the forest sector. New requirements for energy efficiency benefits increased use of wood in buildings.

There is more awareness of using wood in building and housing regarding technology, environment and economy. The construction processes, greater industrialisation and extensive use of modularisation and prefabrication are becoming increasingly important, as are products and technologies for flexible design of interiors and exteriors of buildings

In Sweden multi-storey, multi-residential timber frame construction is proving to be cheaper and faster to build than equivalent buildings in concrete or steel. It is also rated as much better by tenants who had previously lived in concrete apartments. A considerable amount of research has been done covering fire, acoustic, differential movement, construction costs and disproportionate collapse. The main concern of building authorities has been fire performance but those concerns now appear to have been allayed. Having building regulations expressed in performance terms rather than prescriptive terms has been a significant breakthrough for timber in this application.

4 Development in the forest products markets sectors

Wood raw materials

Sawlogs

Sawlogs removals is estimated to rise in 2014 by 11 percent to 36 million m³ (solid volumes under bark) than last year. The forecast for 2015 shows a decline by 0.5 million m³ to 35.5 million m³ compared to 2014. The higher demand for sawlogs in 2014 and 2015 is driven likely by improved markets for sawn softwood due to both strong domestic construction and increasing demand outside Europe mainly in Asia, Middle East and North Africa.

Average price of sawlogs (only statistics for delivery timber is available which represents some 15 percent of total sales) fell by 6 percent in 2013 compared to 2012. In 2013 prices continued to drop in all regions, both for pine and spruce. The main reason for falling prices was decreasing production in sawmills which in turn is due to diminishing demand on the internal and external construction markets. Prices improved in the fourth quarter of 2013 and the first quarter of 2014. The price increase was due to higher production and export prices of sawnwood which in turn is due to improvements in construction market on some of the main export markets. There was a slight fall of prices in the second quarter and further decline in the third quarter 2014 when compared to the quarters before.

Pulpwood

Removals of pulpwood were down by about 1 % in 2013 compared to 2012 and is estimated to decline from 30.2 million m³ (solid volumes under bark) in 2013 to 28 million m³ in 2014. Forecast for 2015 will remain nearly at the same level as 2014.

Pulpwood prices decreased in Sweden by 8 percent in 2013 compared to 2012. Price trends were geographically mixed with price decline in the region South and region Central of Sweden. In the first three quarters of 2014 average pulpwood prices has decreased marginally when compared to the quarters before. The price decline is due mainly to lower prices for market pulp and some paper grades.

The removals and exports were higher in 2013 due to storm damage which was estimated to some 12 million cubic metres in 2013.

Wood energy, with focus on government policies promoting wood energy

Sweden aims to discriminate what is environmentally costly, and let the acceptable alternatives compete on a free market, rather than using various subsidies. Most important for the yet on-going replacement of fossil fuels with renewable energy, mostly bioenergy, in the energy system is the Carbon Tax, implemented in 1992 and increased a few times after that. Some replacement of fossil fuels used for electricity production (already before a minor portion) has been made due to the “Renewable Electricity Certificate” system implemented in 2001.

So far, the carbon tax has been lower for energy production for industries outside the EU Emission Trading System. Now it has been decided that this tax will increase substantially from January 1, 2015, and already now there is a noticeable increase in decisions made about substitution from fossil fuels to renewables within the sector.

Moreover, there is a tendency of increased supply of waste from other EU countries to the bioenergy market, probably due to a tightened implementation of the EU waste directive which prohibits deposition. The increase in the capacity for domestic combustion and procurement of its energy does not keep pace. Thus, within Sweden the use of low value wood from the forest has not increased as much over the last few years as it did during the previous decade.

Wood fuels

The supply of renewable energy in the energy system has increased steadily since the 1970: s mainly through use of bioenergy. Renewable energy accounts for half of the domestic energy consumption (excl. transformation losses). By far the greatest contributor to Sweden's renewable revolution has been bio-energy. Bio-mass, such as firewood, wood chips, pellets, briquettes, ethanol, methanol, biodiesel, bio-oil, bio-gas, dimethyl ether and biomethane accounts for most of Sweden's renewable energy. The use of biofuels in the Swedish energy system has increased over the years. Biofuels, waste and peat made up about 10 per cent or 48 TWh of the energy use in 1980. In 2012, this figure had increased to 140 TWh, which is equivalent to 37 per cent of the total energy use. Of that amount, 47 % was used for industrial purposes (including electricity generation), 38 % for district heating and 10 % for residential and service sectors and 5 % for transport sector.

Biofuels, waste and peat are used primarily in the forest industry, for heat and electricity production and for heating residential buildings. The greatest increase is being seen in industry and in district heating plants. Both the pulp industry and sawmills use sawdust and bark as fuel in their industrial processes. Between 1970 and 2010, the proportion total energy use by industry provided by biofuels, peat etc. has increased from 21 % to 37 %. Biofuels are the main energy source in the pulp and paper industry and in the wood products industry.

The use of biofuels in the district heating sector has increased more than fivefold since 1990. These biofuels are mainly wood fuels in the form of logging residues and low-grade round wood, as well as solid by-products from the forest industry. Refined fuels such as briquettes and pellets are being used to an increasing extent. An advantage of district heating is its flexibility in terms of utilisation of different fuels. Since the 1970s, there has been a major shift towards the use of renewable fuels. In 2012, biofuels accounted for 45 %, waste for 22 %, peat for 4 %, oil for 2 %, biofuels for electricity for 16 % and others for 11 % of the energy input for district heating production in Sweden.

District heating demand is anticipated to decrease as a consequence of energy efficiency improvement measures and global warming. At the same time the market share for district heating will increase and a large proportion of the future cooling demand is produced by district heating by absorption cooling. It is vital that the district heating sector can contribute to recover the surplus heat from industry and future biofuel production.

The residential and services sector has nearly doubled its use of wood fuels in 10 years. The use of refined wood fuels has decreased rapidly in electricity and heat production and also in the residential and services sector as a result of warmer winters. Biofuels have mainly

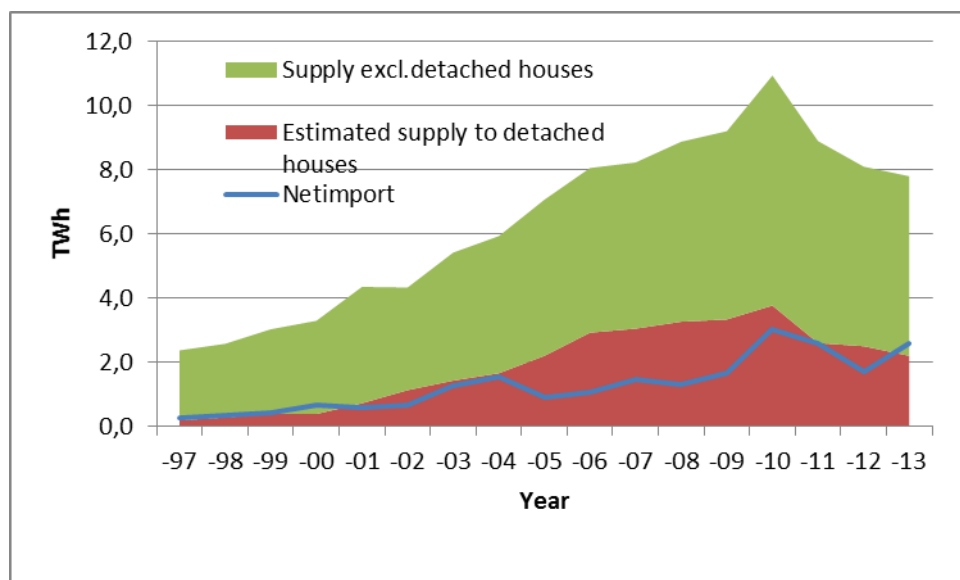
replaced oil used for heating purposes in the residential and services sector because of, amongst other things, the increasing oil price, taxes and grants for converting boilers from heating oil to biofuels

The use of wood fuels in detached houses has been constant between 11.0-12.5 TWh since 2005 and amounted to some 11.5 TWh in 2012, while oil heating in houses almost disappeared.

The increased use of biofuels for electricity and heat production has particularly increased the demand for wood fuels. During the 1980s and 1990s, the prices of wood fuels for heating plants remained essentially unchanged. A long period of surplus of by-products from the forest industry, with no potential sales outlets, meant that there were good stocks of cheap and easily available fuels. The increased demand increased competition for wood fuels, and price levels rose during the 2000s. Greater recovery of branches and tops from clear felling has been the main factor in enabling the use of these fuels to be increased. Several factors indicate that greater use of waste for electricity and heat production can help to restrain expected future rising prices.

The rapid demand for wood pellets is increasing. Demand for wood pellets in Sweden has outpaced domestic production over the years. An equivalent of 3.5 TWh of wood pellets was imported and 0.7 TWh exported in 2013. Increase in the prices of oil and gas which have been especially beneficial for pellets.

Figure 1. Supply of pellets to the Swedish market, 1997-2013, in TWh



Source: Swedish Association of Pellets Producers.

Pellet prices for residential customers in recent years have basically remained constant or slightly decreased despite increased raw material costs. Warm winters of 2011-2013 resulted

in fewer sales. Sales of wood pellets are temperature dependent and the use goes up during the cold winters. On the international market the dollar has gained strength against the euro and the Swedish krona. The market was cautious. It is anticipated that demand would increase as the winter approaches. An additional factor contributing to the uncertainty is that there are still question marks on the support for biomass fuel in some countries.

The average prices of wood chips and by-products per MWh, current prices excluding taxes, decreased both at the district plants and industry in 2013 compared to 2012. There was a slight increase in prices for briquettes and pellets for use in district heating in 2013.

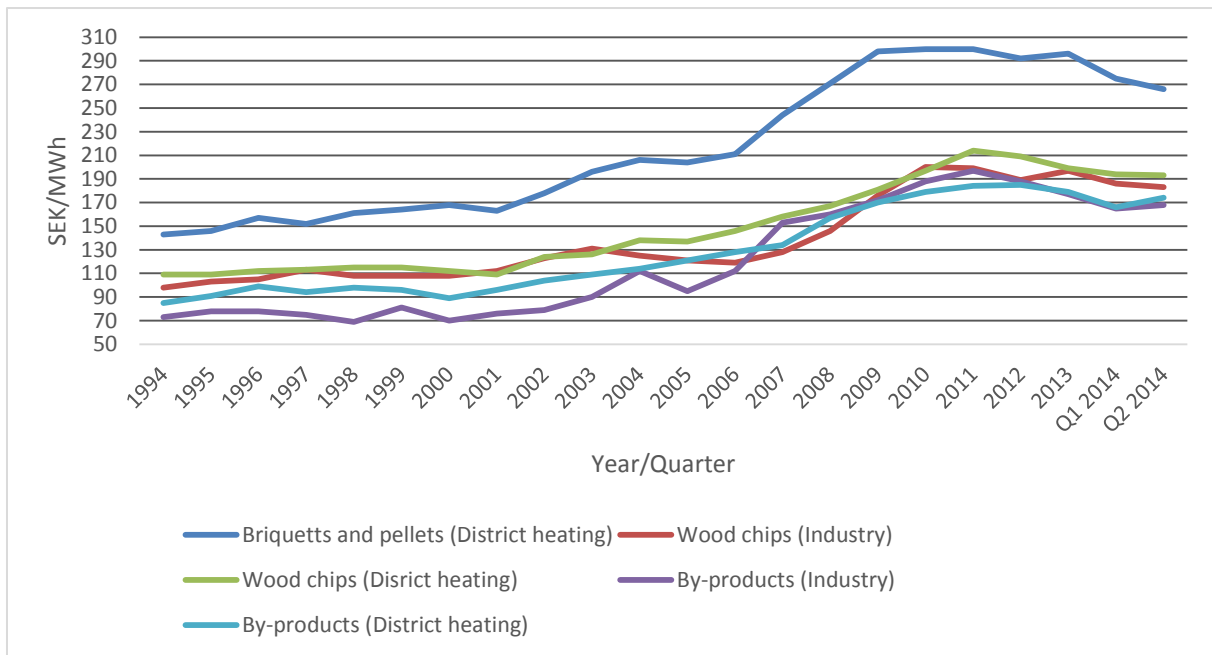
The preliminary figures for the first and second quarter of 2014 shows a continued decline trend for all wood fuel assortments with the exception of by-products which is stable when compared to the quarters before.

Behind the low prices are many interacting factors. One of these is probably more competition from waste and coal. Other contributing factors may be the low import price of coal and the decreased price in EU emission trading system. The increased production in sawmills in recent years has resulted in more sawdust competing with wood fuel. Electricity prices have also fallen in recent years.

The Government abolished additionally carbon tax completely for CHP from January 1, 2013 and from January 1, 2014 there was also reduced in the carbon tax for heat. Both changes have probably affected the demand for wood fuels. This in turn means that demand has decreased and prices have dropped on these biofuels.

The recent large forest fire in Sweden will also have an impact on wood fuel market prices particularly in some areas of Sweden. As a result of forest fire some rough estimates of 1.6 TWh is likely to be available mainly for wood fuels.

Figure 2. Price trends of briquettes/pellets, wood chips and by-products 1994-2013, SEK/MWh, average prices, current prices excl. taxes



Certified forest products

In 2013 total certified forest land according to PEFC standard was 11,263,434 hectares productive forest land, which is nearly 50 percent of total productive forest land. The number of agreements amounted to 39,760 at the same period.

Forest land certified according to FSC standard covers half of the productive forest land, 12,000,000 hectares, in 2013. More than 500 companies are FSC certified, of which 477 according to chain of custody (CoC).

A lot of forest companies, mostly large ones, are double-certified which makes it difficult to produce certified areas share by system of total forest land.

Value-added wood products

Sweden's prefabricated wooden houses industry comprises 520 companies with 4,300 employees, of which 100 companies has more than five employed. Production value was SEK 9.2 billion in 2012. In the first half of 2014 new orders rose by 24 % compared to the same period last year. Total exports of prefabricated wooden houses declined by 14 % and amounted to SEK 441 million SEK in the first half of 2014 compared to 2013 while imports increased by 11 %. Swedish exports were mainly to Norway, Japan, Finland, Germany and Denmark. Swedish imports were mainly from Estonia, Norway and Finland.

The Furniture industry comprises 2,220 companies, of which 1,364 are companies with null employees. Total number of employees were 13,268. The estimates of 2013 of total production of furniture amounted to SEK 23 billion. Total exports of furniture declined by six percent to SEK14.6 billion in 2013 compared 2012. Norway is the main market of export with

a share of 35 %. Other important markets are Denmark, Germany and Finland, each with a share of 10 %. Total imports of furniture declined by 1 percent to 13.1 SEK billion in 2013 compared to 2012. Swedish imports were from Poland, China, Germany, Denmark, Lithuania, Norway and Italy.

Exports in the first half year of 2014 have fallen by 2 % while imports have increased by 10 % compared to the same period in 2013.

Sawn softwood

The production of soft sawnwood amounted to 15.8 million m³ in 2013. During the first eight months of 2014 the production was 8 % more than when compared to the same period 2013. The production is estimated to remain at the same level some 17.3 million m³ in 2015 when compared to 2014. This positive development was due to higher growth in domestic construction and increasing exports to main markets. There was a further access supply of sawlogs in the market due to storm damages in 2013.

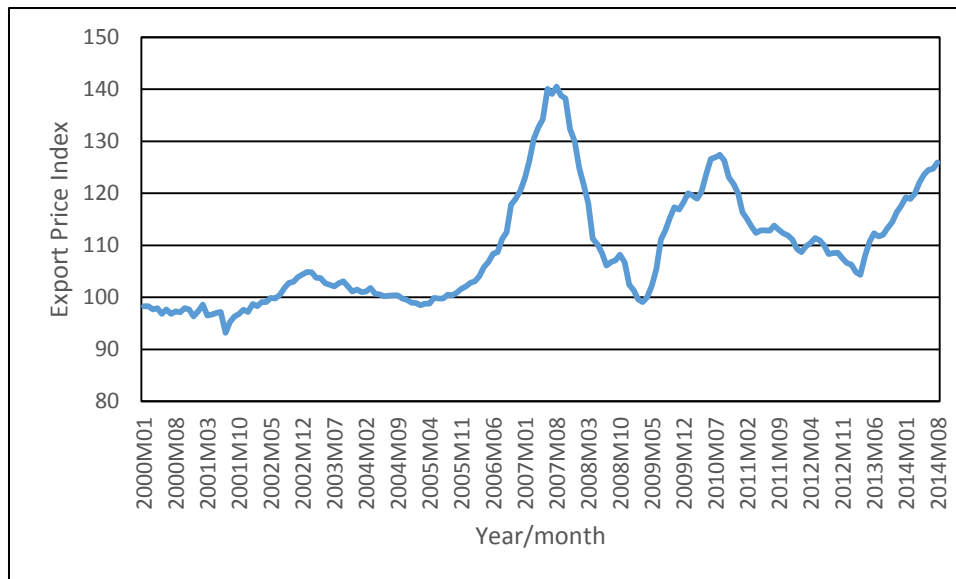
As the European market in general still has to be described as weak, the dependence on the overseas markets is growing along with the development of production we see today. About 40 per cent of the Swedish exports are today shipped to outside Europe. There are of course both opportunities and risks linked to this development.

During the last year up to the end of October the Swedish Krona has depreciated with about nine per cent against the most important currencies for Swedish softwood exports. However, the Krona is still about 2 per cent stronger than the average since year 2000.

Due to weaker demand from both the energy sector and the pulp industry, prices for by-products such as chips and sawdust have decreased during the last years in Sweden.

Exports of sawn and planed softwood decreased in 2013 by about one per cent to 11.7 million m³. During January-June 2014, export deliveries were 8 per cent higher compared to the same period 2013. Shipments to Europe as well as non-European markets have increased. This year will most likely be the first year since 2006 with increased exports to the European markets. The increased demand on important export markets as United Kingdom (+15 % exports during the first half year), exports nearly doubled to Egypt but also upward rise in the Swedish domestic market (+7 %).

*Figure 3. Export price index for sawn & planed wood, 2000- August 2014.
Price Index 2005=100*



Source: Statistics Sweden

After a peak in average export prices in 2007 prices fell during 2008 and reached bottom in the second quarter of 2009. The average prices then peaked up again in late 2010 as a result of very low supply during the years after 2007. The prices have declined throughout 2011 and 2012. The downward trend changed in March 2013 and the prices have steadily increased in 2014 by some 17 % up till the end of August 2014.

Wood-based panels incl. Parquet industry

According to Statistics Sweden the wood-based industry and parquet industry consists of some 100 companies with some 1 900 employees in 2012 and output accounted for approximately SEK 4.0 billion and value added amounted to SEK 947 million. Most are inputs in the furniture and joinery industries and the construction industry. Although manufacturing of packaging and packaging are significant uses. There was a decline in overall production of wood based panels by 5 percent to 624 000 m³ in 2013 compared to 2012. Exports of wood-based panels increased while imports decreased in 2013.

In recent years the cost of wood raw material, energy and chemicals has affected wood based panel industry negatively. The industry will continue to face growing competition for wood from renewable energy sector.

Paper, paperboard and wood pulp

The production of paper and paperboard declined by 6 % to 10.8 million tons in 2013 compared to 2012. All the paper grades declined with the exception of paperboard of packaging. The production remains slack in the first 8 months of 2014 with a fall by 5 % mainly in the production in the graphic paper subsector. The production and exports are forecast to recover slightly in 2015 compared with 2014. The declining trend is mainly due to the weakening of export markets. The global economic slump is affecting negatively the

demand and prices of the paper products. The structural change in the graphic paper subsector is likely to continue in 2014 and 2015. In Sweden the share of packaging papers is increasing and today it is nearly half of the total production of paper and paperboard.

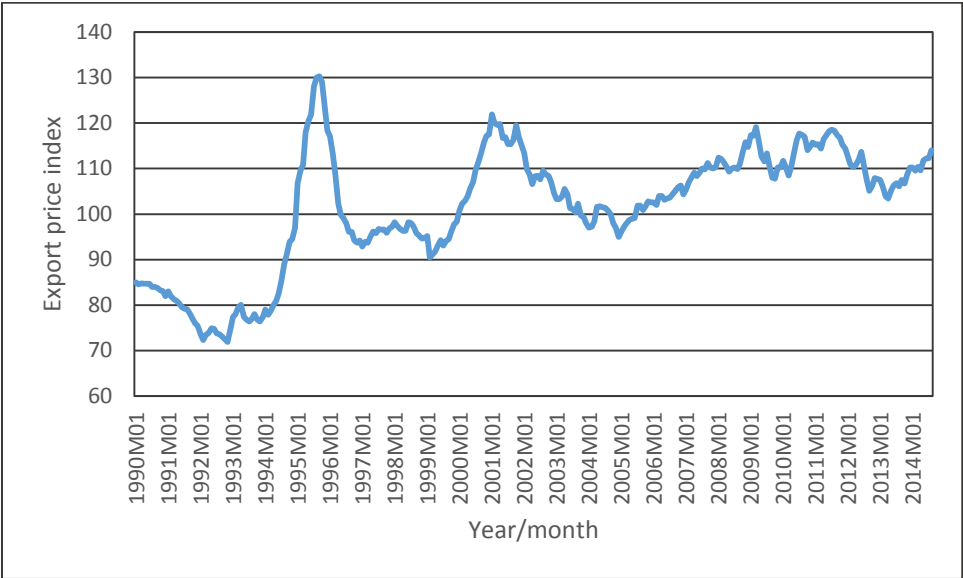
In the first 8 months of 2014 exports of newsprint have declined by 30 % but also exports of mechanical printing paper and wood free printing paper have declined. Exports of packaging material has increased by 4 %. The pace of decline in exports has decreased in the last 3 months.

Prices on local currency remained under pressure in most of the paper grades under 2013. There is a continued downward trend on graphic paper prices, but packaging paper and paperboard prices are slightly rising due to stronger demand

Production of wood pulp reached 11.7 million tons in 2013. This was decrease by 3 % compared to 2012. Chemical pulp has the highest share of some 70 percent of the total pulp production. The estimate production in 2014 is likely to be lower than 2013 and forecast for 2015 again pick up in 2015. Price fluctuations are closely tied to global stocks and changes in balance between supply and demand. Export prices remain dependent on the exchange rate of USD and SEK. The wood pulp prices increased by some 3 % in the first 9 months of 2014.

Modest change is foreseen in the forecasts of pulp exports volumes in 2014 and 2015

Figure 4. Export price index for pulp and paper and paperboard, 1990- August 2014. Price Index 2005=100



Source: Statistics Sweden

Innovative wood products

Biorefinery industry

Innovation incentives have their origins in the innovation systems of the various stakeholders, such as companies, universities, colleges, institutes and regions. Different clusters have been established around these actors and the competence of these can be augmented by cross-sector

collaborations with other branches and sectors. As the biological resources (forests, arable land, wetlands etc.) are distributed throughout the country, these clusters also contribute to regional growth and initiatives can be combined with efficient funds.

Already today Domsjö Development area is an advanced biorefinery. The various product streams are processed in the area into high quality special products with many uses such as viscose production (30 % of the world viscose products market), chemicals, fuels, paints and construction materials. Environmental issues are important in the biorefinery and great environmental consideration is taken throughout all production.

The various companies utilise each other's process streams and also cooperate within the areas of energy supplies, purification plants and other infrastructure issues.

Examples of innovation work in the sawmills

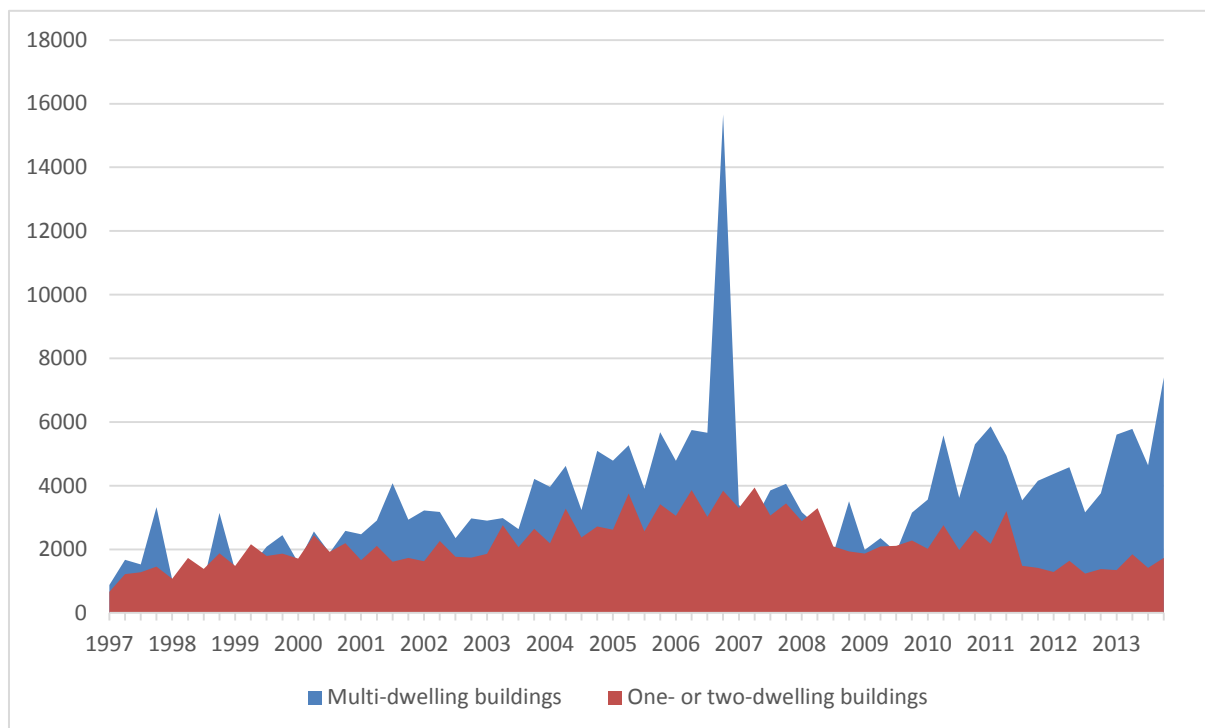
- engineered wood products (EWP, such as pre-fabricated wall panels and flooring systems);
- wooden composites with other materials for green building;
- fittings and consumer products.

Housing and construction

According to preliminary figures, roughly 19 700 dwellings were started in new buildings during the first half of 2014. This is an increase of 35 percent compared to same period in 2013, when construction of 14 578 dwellings was started.

In multi-dwelling buildings 16 150 dwellings were started; this is an increase of 42 percent compared to same period in 2013. Even the construction of one- or two-dwelling buildings has started to increase during the first half of the year. Approximately 3 550 dwellings were started during the first half of 2014; this is an 11 percent increase since the same period last year.

Figure 2. Number of started dwellings 1997-2013



Source: Statistics Sweden

The activity in house building has since the early 1990s been on a very low level compared with most other countries. But from last year it has quite rapidly started to increase and this year it seems to pass pre-crisis levels. Even though the increase more or less totally is on the multi-family housing side, which consume clearly less wood per dwelling than single family housing, it has to be seen as a positive thing for the wood producers.

The building sector will probably consume about 5 per cent more wood this year than last year. New building alone will consume about 9 per cent more and renovation and remodelling only 2 per cent more.

Sweden's construction is low in a European perspective. After the collapse in 1990s the Swedish housing construction in the year 2000 was only 1.4 dwellings per 1,000 inhabitants, which was far below EU average of around five. Since then the housing construction has increased but is still half as many per capita compared to Norway, Denmark and Finland.

Almost all governmental subsidies for construction ended from 2007 onwards. This meant that a large amount of constructions was stated at the end of 2006, affecting the number of dwellings stated in 2007 and 2008. But the phase out of subsidies has no longer an impact on construction. A low activity in the housing market can instead be explained by the slackening economy and to some extent regulatory changes in the mortgage market.

Growth in the construction market will probably increase in 2014 due to an accumulated need for new dwellings but also due to a more positive view on the future economy as a whole. There are, however, constraining factors that affects the construction market. One is the mortgage ceiling which means that loans for investments in dwellings can only be made at 85

percent of the market value. The mortgage ceiling will mainly have negative consequences for investments in one- or-two-dwelling buildings. On the other hand the mortgage ceiling resulted in slower debt growth among household, which is positive, since the rate of the debt growth has been too high in the past.

An excessively low level of construction could harm the broader economy in the longer term. An example is lower mobility on the labour market.

5.a Table on selected Economic indicators

Macro-Economic indicators	2013	2014	2015	2016
(Annual percentage change and percent, respectively)				
GDP at market prices	1.6	1.8	3.1	3.4
Current account ¹	6.8	6.1	5.9	5.3
Employment	1.0	1.2	1.2	1.1
CPI	0.0	0.0	1.1	2.2
Unemployment ²	8.0	7.9	7.6	7.3
Repo rate ³	0.75	0.25	0.50	1.00
Productivity in construction sector	2.0	5.7	1.4	N.A.
Krona/Euro	8.65	9.06	8.90	N.A.
Krona/Dollar	6.51	6.68	6.73	N.A.

1. Percent of GDP

2. Percent of labour force

3. Percent at year-end

N.A. Not available

5.b Removals, forest products production and trade in 2013, 2014 and 2015

Product Code	Product	Unit	2013	Estimate 2014	Forecast 2015
1.2.1.C	SAWLOGS AND VENEER LOGS, CONIFEROUS				
	Removals	1000 m ³	32 100	35 800	35 300
	Imports	1000 m ³	1 124	1 170	1 170
	Exports	1000 m ³	328	190	190
	Apparent consumption	1000 m ³	32 896	36 780	36 280
1.2.1.NC	SAWLOGS AND VENEER LOGS, NON-CONIFEROUS				
	Removals	1000 m ³	200	200	200
	Imports	1000 m ³	20	21	20
	Exports	1000 m ³	3	3	3
	Apparent consumption	1000 m ³	217	218	217
1.2.1.NC.T	of which, tropical logs				
	Imports	1000 m ³	1	1	1
	Exports	1000 m ³	0	0	0
	Net Trade	1000 m ³	1	1	1
1.2.2.C	PULPWOOD (ROUND AND SPLIT), CONIFEROUS				
	Removals	1000 m ³	26 796	25 000	25 000
	Imports	1000 m ³	3 752	4 000	3 900
	Exports	1000 m ³	415	275	270
	Apparent consumption	1000 m ³	30 133	28 725	28 630
1.2.2.NC	PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS				
	Removals	1000 m ³	3 404	3 000	3 000
	Imports	1000 m ³	1 676	1 500	1 500
	Exports	1000 m ³	9	9	9
	Apparent consumption	1000 m ³	5 071	4 491	4 491
3	WOOD CHIPS, PARTICLES AND RESIDUES				
	Domestic supply	1000 m ³	19 000	20 000	20 000
	Imports	1000 m ³	1 883	1 850	1 850
	Exports	1000 m ³	193	210	200
	Apparent consumption	1000 m ³	20 690	21 640	21 650
1.2.3.C	OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS				
	Removals	1000 m ³	250	250	250
1.2.3.NC	OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS				
	Removals	1000 m ³	250	250	250
1.1.C	WOOD FUEL, CONIFEROUS				
	Removals	1000 m ³	2 950	2 950	2 950
1.1.NC	WOOD FUEL, NON-CONIFEROUS				
	Removals	1000 m ³	2 950	2 950	2 950

Product Code	Product	2013	Estimate 2014	Forecast 2015
5.C	SAWNWOOD, CONIFEROUS			
	Production	16 000	17 300	17 300
	Imports	405	400	400
	Exports	11 612	12 300	12 300
	Apparent consumption	4 793	5 400	5 400
5.NC	SAWNWOOD, NON-CONIFEROUS			
	Production	100	100	100
	Imports	50	50	50
	Exports	26	20	20
	Apparent consumption	124	130	130
5.NC.T	of which, tropical sawnwood			
	Production	0	0	0
	Imports	1	1	1
	Exports	1	0	0
	Apparent consumption	0	1	1
6.1	VENEER SHEETS			
	Production	28	25	25
	Imports	11	10	10
	Exports	20	20	20
	Apparent consumption	20	15	15
6.1.NC.T	of which, tropical veneer sheets			
	Production	0	0	0
	Imports	0	0	0
	Exports	0	0	0
	Apparent consumption	1	0	0
6.2	PLYWOOD			
	Production	53	50	50
	Imports	155	155	155
	Exports	42	40	40
	Apparent consumption	166	165	165
6.2.NC.T	of which, tropical plywood			
	Production	0	0	0
	Imports	5	5	5
	Exports	5	2	2
	Apparent consumption	0	3	3
6.3	PARTICLE BOARD (including OSB)			
	Production	483	480	480
	Imports	480	470	470
	Exports	58	50	50
	Apparent consumption	905	900	900
6.3.1	of which, OSB			
	Production	268	270	270
	Imports	116	120	120
	Exports	2	22	2
	Apparent consumption	383	368	388
6.4	FIBREBOARD			
	Production	90	85	85
	Imports	302	300	300
	Exports	87	90	90
	Apparent consumption	305	295	295
6.4.1	Hardboard			
	Production	21	20	20
	Imports	76	75	75
	Exports	4	4	4
	Apparent consumption	93	91	91

6.4.2	MDF (Medium density)			
	Production	56	55	55
	Imports	199	200	200
	Exports	73	73	73
	Apparent consumption	182	182	182
6.4.3	Other fibreboard			
	Production	13	10	10
	Imports	27	25	25
	Exports	9	9	9
	Apparent consumption	30	26	26
7	WOOD PULP			
	Production	11 721	11 650	11 750
	Imports	422	400	400
	Exports	3 435	3 500	3 550
	Apparent consumption	8 708	8 550	8 600
10	PAPER & PAPERBOARD			
	Production	10 782	10 600	10 800
	Imports	878	750	750
	Exports	10 132	9 500	9 700
	Apparent consumption	1 528	1 850	1 850