Market Statement 2012 SWEDEN

UNECE Timber Committee Market Discussion 16-17 October 2012

1 General Economic Trends

Despite slackening economic growth in Europe, GDP rose by 2 percent in Sweden during first half of 2012. The underlying development is, however, not so solid as the GDP figures indicate and the forecast is negative GDP growth of 0.8 percent in the third quarter this year. Underlying the fall-off is the continuing euro crisis. GDP full year 2012 is estimated to increase by 1.3 percent. Despite strong growth in the first half of 2012, resource utilization in the Swedish economy is still low, and will recede further during the autumn. The low level of resource utilization in the economy this year means that there is substantial room for GDP to rise, although the increase will be modest. Domestic conditions for recovery are favorable compared to those in many other countries. Public finances are robust, and household saving is high. At the same time, Sweden has large surpluses in foreign trade, and in general the business sector is competitive internationally, despite the recent substantial appreciation of the Swedish krona. Given Sweden's sizable foreign trade, however, the country's economy is heavily dependent on the developments in other countries. The weak growth abroad this year and next year will hold back recovery in Sweden.

With the low growth in the OECD countries this year and next year, the world market for Swedish exporting firms will expand rather slowly. This factor will be one reason why Swedish exports will increase by modest 2 percent this year and by only 4 percent in 2013. In the years 2014-2016 exports will increase by 5-6 percent per year. As this growth is lower than the growth rate of the global market for Swedish exports, the country's exporting firms are expected to lose market share. Growth in domestic demand will thus remain a more prominent driving force than in recent periods of recovery in the Swedish economy, particularly in comparison to the years following the crisis in the early 1990's.

Imports will rise modestly in 2012 because of weak tendency of demand. In 2013 growth in demand will recover. At the same time, a stronger krona will continue to curb the development of prices of import. In total, this means that imports will rove by 5 percent next year. In 2014-2016 growth in imports will be rising further as demand accelerates. Imports will then be increasing by an average of about 7 percent per year.

Net export will be higher this year as a share of GDP, but next year the downward trend that began in 2007 will resume. Export of goods from Sweden during the second quarter decreased by 0.7 percent in volume compared to the second quarter of 2011. At the same time, imports of goods decreased in volume by 3.3 percent. Wood and paper products decreased by 1 percent in 2011 and increased in volume by 0.8 percent in the first half of 2012 but decreased by 2.4 percent in the same period. The decline in export will continue in 2014-2016, and in 2016 net export will be slightly less than 5 percent as a share of GDP. Exports are sluggish mainly because of soft demand and falling investments in Europe.

The budget bill for 2012 included about SEK 15 billion in unfunded measures. For 2013 the Government will probably be slightly more expansionary and implement more unfunded measures compared to 2012.

1.1 Economic stimulus policies and forest products markets

The Government's proposal tax deduction on labour work repair, renovation, extension and maintenance on houses (ROT) excluding material was passed by Parliament on May 13, 2009. The ROT deduction also serves to reduce energy use through covering a number of measures for saving energy The government has worked intensively to prepare measures to mitigate the effects of the economic crisis and improve the conditions for a gradual recovery. The main purpose is to invest in this particular type of tax credit is that the construction sector has weakened rapidly. It is 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 13.6 billion in 2011for tax reduction for ROT. There was a rise by 4 percent in 2011 compared to 2010. 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.

1.1b Government stimulus: A forest kingdom – with values for the world

In 2011 the Government launched a programme to promote new jobs in the forest sector and thereby helping economic development in rural areas. The programme is based on the sustainable use of forests and coequal objectives of environment and production. It focuses on four themes:-, sustainable use of forests, processing and innovation, ecotourism and recreation and Sweden internationally. These form the basis of the work with countrywide involvement of forest stakeholders. The Government has earmarked SEK 20 million annually until 2015 for projects promoting more jobs in the forest sector.

1.2 Climate change and forest-related markets

Policy instruments and measures for climate and energy policy

To achieve the targets of energy and climate policy that have been set, various policy instruments are employed. Those used today are intended to guide developments towards a greater use of renewable energy reductions in greenhouse gas emissions and improved energy efficiency are other priority areas. Examples of economic policy instruments are taxation, electricity certificates and emissions trading systems. Various types of regulations are examples of administrative policy instruments. Information and research are often employed as supplementary policy instruments.

This target encompasses activities not included in the EU Emissions Trading System. The vision for 2050 is that Sweden should have no net emissions of greenhouse gases into the atmosphere. This decision is a supplement to the environmental quality target for limited climate impact.

To achieve the goal of 50% renewable energy by 2020, Parliament adopted Bill 2009/10:133 to extend the electricity certificate system to the end of 2035. July 2011 also saw the submission of Government Bill 2010/11:155 regarding a new Act for electricity certificates, opening the way for simpler rules and a common market for electricity certificates.

Sweden and Norway have come to a legally binding agreement on a common market for electricity certificates. This common market for electricity certificates is proposed to

commence on 1 January 2012 and last until the year 2036. The agreement was signed on 29 June 2011. The purpose of the common market is to improve market function, increase its cost effectiveness and give rise to a greater production of renewable electricity. On the part of Sweden, it still remains for Parliament to approve the agreement.

The changes will continue to influence the forest product market and energy market and indirectly also forest management. Harvesting of branches and tops and stumps at clear-cuttings is steadily increasing. Logistic costs for these bioenergy systems have been steadily decreasing.

Fuel-based energy systems

Sweden is one of the leading countries in the production and use of solid biofuels, such as wood chips and pellets. In fuel-based energy systems, the chain from raw material to product is to be made more cost and resource effective while maintaining environmental sustainability. The supply of fuels from both forestry and agriculture is to increase, to fulfil the future demand from the energy and transport sectors. Solid waste should be minimized and wherever possible be combusted or digested with energy recovery if it cannot be reused or recycled. Heating and CHP technology is being studied to gain knowledge that can improve the efficiency of established techniques. This concern, for example, improved electricity yield and increased fuel flexibility. The conditions for introducing new techniques with improved performance are also being studied.

New Acts to reduce emissions and improve public transport

Swedish transport policy is being geared towards the incremental increase of the energy efficiency of the transport system, the breaking of dependency on fossil fuels and the reduction of climate impact. In order to adapt the provisions to the Fuel Quality Directive, a new Act on vehicle exhaust emissions control (2011:318) and a new Act on motor fuels (2011:319) based on Government Bill 2010/11:51 were introduced. They replace the Act on vehicle exhaust emissions control and motor fuels (2001:1080). What is new in these Acts are the requirements to report motor fuel emissions and that suppliers of motor fuel are to implement measures to reduce their emissions. A growing share of biofuels for transporting (mostly Brazilian ethanol) has also contributed.

Sweden’s Rural Development Programme for 2007-2013 is partly utilised to support knowledge extension about the production and processing of renewable energy and adaptation in forestry to climate change

1.3 Policy issues affecting markets

Sweden Green Building Council was founded in June of 2009 by thirteen Swedish companies and organizations and in October 2011 became an established member of World Green Building Council (World GBC). Green building policies continue to affect markets, by emphasizing the green credentials of building with sustainably produced wood. The main aim is to

- Provide, develop and market certification scheme to enable benchmarking the national and international perspective.
- Provide certifications, courses and seminars / conferences to disseminate, implement and develop an understanding of sustainable construction.

- Be a strong opinion formers and as such contribute to the legislation promotes a sustainable building.
- Reach a state where all stakeholders reward sustainable buildings.

Most green buildings programmes increasingly focus on environmental aspects of construction materials. The designation of environmentally better materials can be based on life cycle assessment (LCA), which compares different materials on the basis of consistent, measurable characteristics of their environment impact. The use of materials that are recyclable or reusable, and bio-based and certified wood products may provide a further boost for wood in construction

1.3.1 Trade related policies

The EU Timber Regulation (EUTR), banning the trade of illegally sources timber and wood products, was formally approved and will enter into force in March 2013. The Regulation states that operators who place timber or timber products on the EU market for the first time need to have a due diligence system in place to minimize the risk that products may have been illegally harvested. That system should consist of measures and procedures that provide access to relevant information, to conduct risk assessment and, unless the risk is found negligible, mitigate the risk.

Swedish Forest Agency (SFA) was commissioned by Swedish Government to draft a proposal for a new law on timber and timber products. The proposal for a new law will among other things contains rules for penalties and sanctions. SFA is now implementing EUTR which in practice means recruiting expertise and capacity to be able to conduct checks on operators and monitoring organisation.

It remains to be seen whether EU Timber Regulation will affect the trade of timber and timber products. Most difficult to comply with the regulation will probably be small and medium sixe import companies.

1.3.2 Major changes in lower tariffs of roundwood from Russia

After joining the WTO Russia will lower the presently applicable roundwood export duties of 25 %. Duties on spruce roundwood will thus fall to 13 % of the product value and those on pine roundwood to 15%. 7 % and 5 % duty will be applicable for birch and poplar roundwood exports, respectively. The same duty rates will apply for sawlogs and pulpwood. However, the reduced rates will only apply for export quotas of spruce roundwood and of pine roundwood. The old duty rates apply for exports outside these quotas. No quota will apply for birch and poplar roundwood, which can thus be exported in unlimited quantities at the new duty rates

The Swedish imports of roundwood from Russia have declined since 2008 and the share of roundwood was 7 % of the total imports in 2011.

1.4 Research and Development policies

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 is expected to be 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

Bioenergy

Significant funding is being channeled via the Energy Annecy.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

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 research programme period is 2009-2012 and the funding amounts to some 150 million SEK.

National forest sector dialogue on SFM

In recent years Sweden has experienced increased polarization between environmental groups and the forest industry. During 2011 the Government launched a national dialogue on SFM with a view to create more consensus on national forest policy goals and means to achieve them. The process will continue to go on during 2012 and will eventually result in an action plan and new forest sector targets.

National strategy for bioeconomy

Research institutions Formas, together with Vinnova and the Energy Agency, has submitted to the government 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. R&D needs to be complemented by inputs that promote innovation and measures that specifically deal with the challenges of bioeconomy. The four principal areas where R&D needs to be identified: Replacement of fossil raw materials by biobased raw materials, smarter products

and smarter use of raw materials, Changed consumption patterns and attitudes, Prioritisation of, and a choice between, measures.
Researchers propose to replace plastics and aluminium by renewable materials! It is possible to replace conventional oil based plastics. Not least in food packaging where a good barrier to e.g. oxygen or water lengthens shelf life and helps preserve the freshness, aromas and moisture of the food. In our modern food industry, very large volumes of barrier layers are needed, and consequently large tonnages of synthetic plastic materials and aluminium are used every year for this purpose.
Lignin is the future source of fine chemicals. The transition from petroleum based chemical processes to bioprocesses based on renewable raw materials yields considerable environmental gains, which is a must for the maintenance of economic growth in the future. Above all, studies are being made of lignin as the basis for the production of aromatic fine chemicals. The most common renewable raw material on earth is plant material, such as lignocelluloses, and this is the most obvious option as the replacement for fossil raw materials.

2 Market drivers, including wood and paper procurement policy developments

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.

3 Development in the forest products markets sectors

3.1 Wood raw materials

3.1.1 Sawlogs

Sawlogs removals fell by 1.7 percent from 2010 and were 14 percent lower than 2007.The downward trend was mainly the result of the decline in housing starts and reduced demand for sawnwood. There is a slight fall in the forecast for 2012 and 2013 and reach 34.2 million m³ (solid volumes under bark). Average price of sawlogs (only statistics for delivery timber is available which represents some 15 percent of total sales) rose by 4 percent in 2011 compared to 2010. The increase in prices was due to result of to the demand growth from the buyers and lower stocks and sawnwood export prices in the first half of 2011. .The highest price rise was in the Northern region of Sweden. In the first and second quarters of 2012 the prices decreased compared to prior quarters. Sawlogs exports fell sharply by 35 percent in 2011 and the forecast for 2012 and 2013 is around 400 000 m³, nearly the level as in 2011. Sawlogs imports also declined by 13 percent in 2011 and the forecast for 2012 and 2013 a slight increase in the volumes..In 2010 the sawmill industry consumed 34.5 million m³ and at the same time generated 10.4 million m³ of by-products for use in the pulp and wood-panel industries.

Pulpwood

Removals of pulpwood increased from 30.7 million m³ (solid volumes under bark) in 2010 to 31.2 million m³ in 2011. Forecast in 2012 shows slight rise and in 2013 a small decrease again. . Pulpwood exports declined by 25 percent in 2011 to 450 000 m³. In 2011 pulpwood imports increased by 5 % to 5.3 million compared to 2010. The import share of coniferous was some 57 percent in 2011. The forecast for 2012 and 2013 for export/import of pulpwood shows modest changes. The pulp industry consumed 45.4 million m³ of which 23 percent consisted of by- products. In 2011 average prices of pulpwood increased by 13 percent compared to 2010. Pulpwood prices increased in all regions of Sweden by 9-11 %. In the first and second quarter of 2011 average pulpwood prices declined compared to prior to quarters. In the current market situation there is a surplus of pulpwood especially in Southern region of Sweden where portion of it is used in the energy sector.

In late December 2011, a severe storm hit the central Sweden. It was estimated that some 4.5 million m³ were damaged. Some estimates suggest that some 80 % of the storm-felled trees area of pine and the larger part consist of sawlogs. The general picture suggests that there is some demand for sawlogs in some areas of Sweden.

3.1.2 Wood fuels

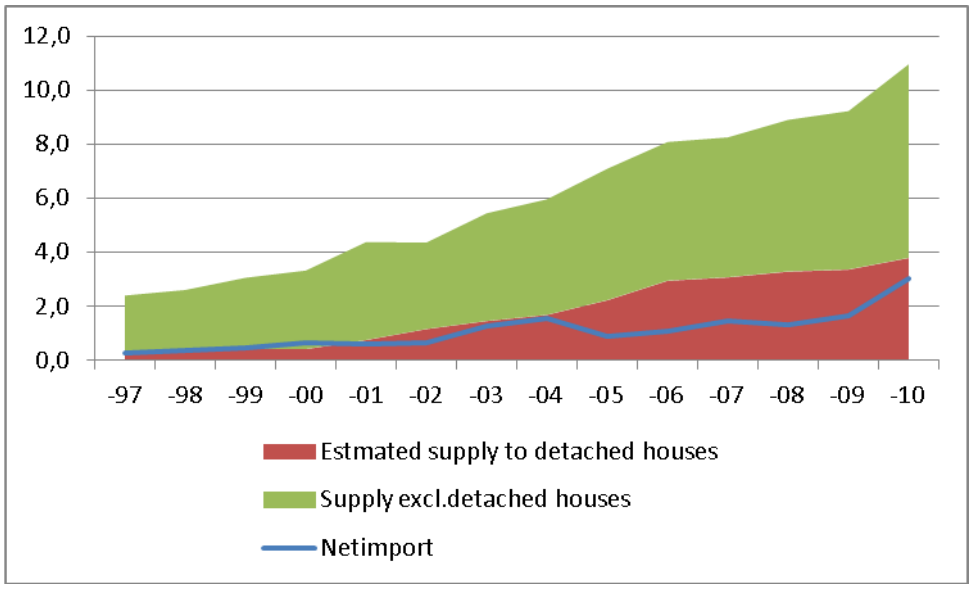
According to the Swedish Energy Agency the use of biofuels, peat and waste in the Swedish energy system has increased over the years. In 1983, the use was 53 TWh, accounting for just over 10% of the total energy supply. In 2010, biofuels, waste and peat accounted for 23%, having increased to 141 TWh. 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. The use in the residential sector and transport sector is also increasing.
Both the pulp industry and sawmills use sawdust and bark as fuel in their industrial processes. In 2010, 14.4 TWh of solid by-products and waste products was used by industries for heat production. In 2010 the use of biofuels, peat and waste for heat production in district heating

plants, excluding electricity production, increased to 47 TWh. Wood fuels accounted for 32 TWh. 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. Densified fuels such as briquettes and pellets are being used to an increasing extent.

The trend for the use of wood fuels in detached houses is increasing and amounted to some 12.3 TWh in 2010, while oil heating in houses almost disappeared.

The rapid demand for wood pellets is increasing. Demand for wood pellets in Sweden has outpaced domestic production over the years. The proportion of the net import of wood pellets is estimated to just under one tenth. An equivalent of 3.4 TWh of wood pellets was imported and 0.3 TWh exported in 2010. In 2010, peat imports amounted to 1.0 TWh. Increase in the prices of oil and gas which have been especially beneficial for pellets.

Figure 1 Supply of pellets to the Swedish market, 1997-2010, in TWh



Source: Swedish Association of Pellets Producers. Figures for 2010-2012 are forecasts

Pellet prices for residential customers in recent years have basically remained constant despite increased raw material costs. In comparison with such electricity prices fluctuate even less over years seen. The low price can have several causes. One seems to be the establishment of producers which appeared clearly in 2011 and 2012 when several producers closed down its operations due to declining profitability. Another reason may be competition from imports, and sometimes cheaper, quantities of wood pellets, mainly from the Baltic States, Russia, the U.S. and Canada. Sales of wood pellets are temperature dependent and the use goes up during the cold winters. A warm winter of 2011 resulted in fewer sales.

The average prices of fuel chips at district heating plants per MWh, current prices excluding taxes, increased from 197 SEK/MWh in 2010 to 214 SEK/MWh in 2011. Prices for fuel chips at industries remained unchanged in 2011 and prices for briquettes and pellets in 2011 also remained at the same level when compared to 2010.The preliminary figures for the second quarter of 2012 shows that prices are on the same level or slightly higher for all wood fuel and peat assortments, when compared to the first quarter of 2011.

3.2 Renewable energy

Sweden is in reach of the 49% renewable energy target of 2020. In 2010, the share of energy from renewable sources in gross final consumption was 47.8%, which can be compared positively to the 39.8% in the base year of 2005.

The supply of renewable energy sources has increased continuously the last 20 years, while at the same time, final consumption has been relatively stable. In 1990, for example, the share of renewable was 33.9%. In 1991, meanwhile, Sweden was one of the first countries worldwide to introduce a carbon tax. As a consequence of this, we have phased out fossil fuels as a heat source for buildings. The direct use of oil for such heating systems has almost disappeared, being replaced by district heating that is mainly based on combustion of residues from biomass use and heat pumps. Altogether biomass, including lye, is the most used renewable source in Sweden, with hydropower as the second most common source.

A scenario describing the possible structure of an energy system based on renewable sources in Sweden in 2050 has been developed by IVL Swedish Environmental Research Institute as part of a research project. The scenario is based on the Swedish government's vision of a 2050s Sweden with a sustainable and resource-efficient energy supply system free of net emissions of greenhouse gases

One of the major challenges is to substitute the fuels used in transport. The transport sector is heavy reliant on fossil-based fuels. The transition from fossil fuels to renewable requires a production capacity for biofuels in Sweden. The scenario has opted for biorefineries where a high level of efficiency can be reached. Heat from these industries can be distributed through district heating: electricity and biofuels are important energy carriers. The scenario have strong measures for limiting the use of primary bioenergy feedstock due to environmental
concerns. In some cases the scenario has opted for a route where electricity is used to provide heat through heat pumps as well as pushing for transport methods that use electricity in order to reduce demands for bioenergy.

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

3.3 Certified forest products

In 2011 total certified forest land according to PEFC standard was 11 million hectares, which is 48 percent of total forest land. The number of agreements amounted to 38,000 at the same period.

Forest land certified according to FSC standard covers half of the forest land, 11,236,402 hectares, in 2011. More than 450 companies are FSC certified, of which 430 according to chain of custody (CoC).

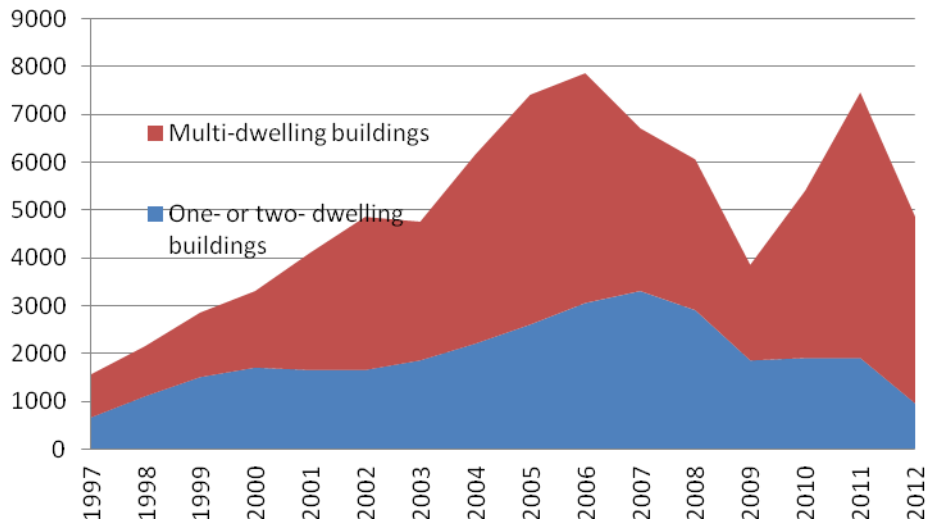
A lot of forest companies, mostly large ones, are double-certified which makes it difficult to produce certified areas share by system of total forest land.

3.4 Value-added wood products

During the first and second quarters of 2012, construction of 9,900 dwellings was started. This is a decrease of 34 percent compared to the same period of 2011, when construction of 15,094 dwellings was started.

The distribution of dwellings during the period ::
2012: 2,350 dwellings in one- or two-dwelling buildings and 7,550 in multi- dwelling buildings.
2011: 4,950 dwellings in one- or two-dwelling buildings and 10,144 in multi-dwelling buildings.

Figure 2. Number of started dwellings 1999-2011



Source: Statistics Sweden

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 that 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 should no longer have an impact on construction. A low activity in the housing market can instead be explained by the slackening economy and to some extend regulatory changes in the mortgage market.

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

Sweden's prefabricated wooden houses industry comprises 260 companies with 5,000 employees. The turnover declined by 34 percent in the first half of 2012. For the same period orders fell by 25 percent and according to actors in the business no improvement are to be seen in the years ahead.

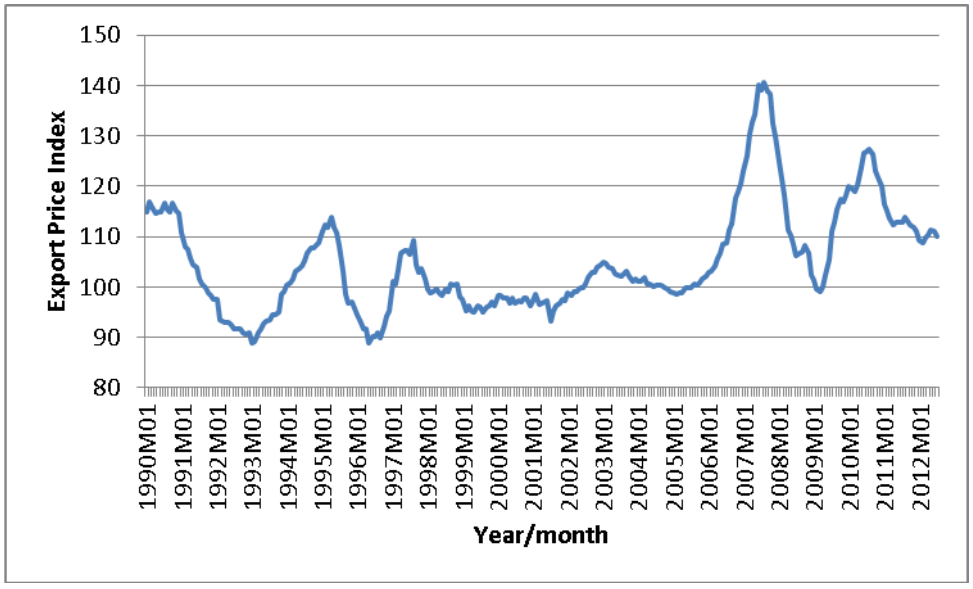
Exports of furniture increased by 6 % to 15.7 billion SEK in 2011 compared to 2010. Exports to Norway were one-third of the total exports. Import of furniture increased by 1% to 13.4 billion SEK in 2011 compared to 2010. Large import countries were China (19 percent), Poland (16 percent), Germany (14 percent) and Denmark (9 percent).

3.5 Sawn softwood

Recession and economic uncertainty weakened demand for sawnwood in 2011. The debt crisis in some euro zone countries had continued dampening effect on the construction sector, which is a strong incentive for sawnwood. Lack of consumer confidence and the low level of construction activity and renovations in residential construction which provides opportunities for more diverse uses of sawnwood and wood products are slowing down in Sweden. The sawmills receive lower prices for the waste products such as wood chips, a record that has become increasingly important for sawmill profitability. The problem strengthened more in recent months due to the stronger Swedish krona and weakening euro which leads to loss of market shares to the competitors. Exports to North Africa and Middle East countries continue to increase in the first half of 2012. There was only modest fall in production of sawnwood and totalled 16.6 million m^3 in 2011. The exports of sawnwood increased by 2 percent to 11.6 million m^3 in 2011 compared to 2010. Deliveries to the Swedish markets declined by 2 percent. Production and exports forecast in 2012 and 2013 are expected to adjust to the lower demand in Europe and domestic market.

To get the necessary production cutbacks in the sawmill industry and thereby achieve a better balance of supply and demand seem to be extremely difficult. The answer is likely to be found in the repressed situation. Most sawmills with standing forest timber stocks of forest that attracts capital and the only way to get cash is to proceed as normal, even if it leads to losses. Making decisions to cut back sharply on purchases of timber would mean that inevitably will slam forward, even if turns later. Therefore, there are few options for individual sawmills. Investments have been made to rise sawmills production.

Figure 3. Export price index for sawn softwood, 1990- July 2012. Price Index 2005=100



Source: Statitics 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 have increased again in the first half of 2010 due to combination of higher prices for sawlogs and decreasing stock volumes of sawlogs. In the mid-2011 the export prices have declined by some 10 percent compared to the same period last year. The prices have declined in the first half 2012 compared to the same period 2011.

3.6 Sawn hardwood

Sawn hardwood is a marginal product in Swedish sawnwood industry with a share of less than 1 % of the total sawnwood production.

3.7 Wood-based panels incl. Parquet industry

According to Statistics Sweden the wood-based industry and parquet industry consists of more than 100 companies with 2 100 employees in 2010 and output accounted for approximately 4.5 billion SEK and value added amounted to 1.1 billion SEK. Most are inputs in the furniture and joinery industries and the construction industry. Although manufacturing of packaging and packaging are significant uses. The overall production of wood based panels dropped by 8 percent to 648 000 m³ in 2011 and exports also declined but imports increased in 2011.

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.

3.8 Paper, paperboard and woodpulp

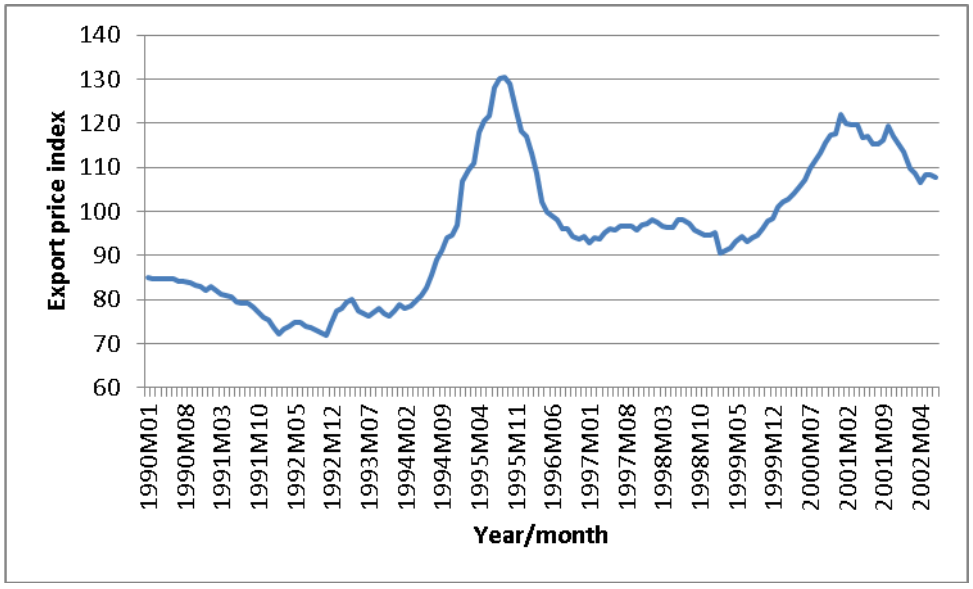
Paper and paperboard output, export and consumption declined in 2011, following a recovery in 2010 compared to 2009. In 2011 the production of paper and paperboard decreased slightly by 0.9 percent to some 11.3 million tons. Production in the last two years are at a level that is half a million tons lower than before the economic crisis and recession in 2008-2009. Overall in 2011 output of graphic grades decreased marginally. Production of newsprint fell by 2.2

percent and production of coated papers decreased by 2.0 percent, whilst uncoated mechanical and uncoated wood free increased by 2.5 percent compared to 2010. These changes partly reflect newsprint production was put on production capacity from newsprint production to magazine paper to respond to changed consumption patterns. In the contrast to the majority of packaging materials declining, output of cartonboard increased by 2.3 percent Cartonboard represents 22.7 percent of all paper and board produced in 2011. The exports of paper and paperboard remained nearly unchanged to 10.1 million tons in 2011. The total export value paper in 2011reached some 72 billion SEK compared to 70 billion SEK in 2010. Paper exports are mainly in Europe. Germany is Sweden´s largest export market for paper. Exports of paper to Asia increased due to stronger demand by 10 percent in 2011, mainly to China and Japan. In 2011 the price trend is fragmented, with the rise of certain qualities, while unchanged or fall for others following overcapacity for most of the paper commodities in the market. The pattern of consumption paper in the last 3 years has changed. Only sanitary and household papers increased in consumption, whilst newspaper and printing and writing paper declined in consumption. The production and export of paper and paperboard is forecasted to increase slightly in 2012 and 2013.

Production of wood pulp reached 11.9 million tons in 2011. This was nearly on the same level as 2010. Chemical pulp has the highest share of some 68 percent of the total pulp production. Several mills reduced production or extended maintenance shutdown during the second half of 2011. In Sweden the pulp exports in 2011 fell by 6 percent to 3.1 million compared to 2010. Price flucuations are closely tied to global stocks and changes in balance between supply and demand. The average prices of bleached sulphate of softwood rose to record level of 1 025 USD in the first half of 2011. The economic crisis of euro zone was increasingly noticeable in the market in the autumn. The pulp stocks rose and there was a price drop of some 20 percent to 820 USD in December. China´s need for wood fibre has kept pulp demand and prices at a high level globally. Export prices remain dependent on the exchange rate of USD and SEK. The production and export of pulp is forecasted to increase in 2012 and 2013.

The theme of sustainability continues in the Swedish pulp and paper industries. 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.

Figure 4.Export price index for pulp and paper and paperboard, 1990- July 2012. Price Index 2005=100



Source: Statistics Sweden

3.9 Carbon markets in the forest sector

The EU Emissions Trading Scheme (ETS) is governed by the Emissions Trading Directive (2003/87/EC). Initially, trading only covers emissions of one greenhouse gas - carbon dioxide - from energy installations and certain energy-intensive industrial sectors. In Sweden, the companies involved have been provided with the opportunity to apply for an allocated emissions allowance. Special allocation principles have been applied in considering each installation's application. Final decisions on allocations have been taken by the Environmental Protection Agency after consultations with the National Board for Industrial and Technical Development (NUTEK) and the Energy Agency. Emission allowances have then been allocated to the companies free of charge. So far the carbon trading schemes mainly includes industry and energy production.

Sweden contributes actively to the global forest partnership established in Oslo in May 2010. The Swedish Government pledged for the period 2010-2012 SEK 500 million to support different REDD+ initiatives (SEK 100 million to the GEF programme for sustainable forest management and SEK 400 million to bilateral programmes and projects

Clean Development (CDM) and Joint Implementation (JI) project activities

Swedish Energy Agency is to assist in making CDM and JI credible and effective instruments in the international climate collaboration. This will primarily be brought about through the establishment and development of a portfolio of CDM and JI projects. The intended result is cost effective reductions in greenhouse gas emissions, which the Swedish Energy Agency will administer through the Swedish CDM and JI projects. Acquiring emissions reductions through CDM and JI is cost effective, as the cost for doing so via the project-based mechanisms is lower than the marginal cost of emissions reductions in Sweden. Emissions reductions acquired via the Swedish CDM and JI programmes are estimated to total 7.4 million tonnes of carbon dioxide equivalents in August 2011. The accumulated funds for international CDM and JI climate actions amount to about SEK 1,500 million for the period 2008–2014.

3.1 Table on selected Economic indicators

Macro Economic indicators (Annual percentage change and percent, respectively)	**2011**	**2012**	**2013**	**2014**
GDP at market prices	3.9	1.3	1.8	2.8
Current account[1]	7.0	6.9	6.5	6.1
Employment	2.1	0.1	0.6	1.0
CPI	3.0	1.1	0.8	1.3
Unemployment[2]	7.5	7.6	7.9	7.7
Repo rate (At year-end)	1.75	1.00	1.00	1.50
Productivity in construction sector	5.6	3.7	1.1	N.A.
Krona/Euro	9.03	8.61	8.38	8.40
Krona/Dollar	6.50	6.81	6.77	6.75

1. Percent of GDP
2. Calender-adjusted
N.A. Not available

3.11Forest products production and trade in 2011, 2012 and 2013

Product	Unit	2010	2011	2011	2012	2013
SAWLOGS AND VENEER LOGS, CONIFEROUS						
Removals	1000 m^3	34 900	34 400	34 400	34 200	34 200
Imports	1000 m^3	571 #	500 #	670	700	700
Exports	1000 m^3	613 #	600 #	400	400	400
Apparent consumption	1000 m^3	34 858	34 300	34 670	34 500	34 500
SAWLOGS AND VENEER LOGS, NON-CONIFEROUS						
Removals	1000 m^3	200	100	100	100	100
Imports	1000 m^3	20 #	15 #	15	15	15
Exports	1000 m^3	3 #	5 #	5	5	5
Apparent consumption	1000 m^3	217	110	110	110	110
of which, tropical logs						
Imports	1000 m^3	2 #	2 #	2	2	2
Exports	1000 m^3	0 #	0 #	0	0	0
Net Trade	1000 m^3	2	2	2	2	2
PULPWOOD (ROUND AND SPLIT), CONIFEROUS						
Removals	1000 m^3	27 240	27 683	27 683	27 950	27 900
Imports	1000 m^3	2 565 #	2 475 #	3 000	3 000	3 000
Exports	1000 m^3	593 #	500 #	440	410	410
Apparent consumption	1000 m^3	29 212	29 658	30 243	30 540	30 490

PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS						
Removals	1000 m^3	**3 460**	**3 520**	**3 520**	**3 550**	**3 500**
Imports	1000 m^3	**3 125** #	**2 025** #	**2 250**	**2 200**	**2 200**
Exports	1000 m^3	**4** #	**5** #	**13**	**10**	**10**
Apparent consumption	1000 m^3	**6 581**	**5 540**	**5 757**	**5 740**	**5 690**
WOOD RESIDUES, CHIPS AND PARTICLES						
Domestic supply	1000 m^3	**20 800** C	**20 000** C		**20 000**	**20 000**
Imports	1000 m^3	**3 579** C	**3 698** C		**3 700**	**3 750**
Exports	1000 m^3	**553** C	**797** C		**800**	**800**
Apparent consumption	1000 m^3	**23 825**	**22 901**		**22 900**	**22 950**
OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS						
Removals	1000 m^3	**250**	**250**	**250**	**250**	**250**
OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS						
Removals	1000 m^3	**250**	**250**	**250**	**250**	**250**
WOOD FUEL, CONIFEROUS						
Removals	1000 m^3	**2 950**	**2 950**	**2 950**	**2 950**	**2 950**
WOOD FUEL, NON-CONIFEROUS						
Removals	1000 m^3	**2 950**	**2 950**	**2 950**	**2 950**	**2 950**

Product	Unit	Historical data		Revised	Estimate	Forecast
		2010	2011	2011	2012	2013
SAWNWOOD, CONIFEROUS						
Production	1000 m^3	**16 650**	**16 700**	**16 600**	**16 300**	**16 100**
Imports	1000 m^3	**355**	**337**	**100**	**100**	**100**
Exports	1000 m^3	**11 359**	**11 656**	**11 600**	**11 400**	**11 300**
Apparent consumption	1000 m^3	**5 646**	**5 381**	**5 100**	**5 000**	**4 900**
SAWNWOOD, NON-CONIFEROUS						
Production	1000 m^3	**100**	**100**		**100**	**100**
Imports	1000 m^3	**67**	**64**		**65**	**65**
Exports	1000 m^3	**12**	**23**		**20**	**20**
Apparent consumption	1000 m^3	**155**	**141**		**145**	**145**
of which, tropical sawnwood						
Production	1000 m^3	**0**	**0**		**0**	**0**
Imports	1000 m^3	**3**	**3**		**3**	**3**
Exports	1000 m^3	**0**	**0**		**0**	**0**
Apparent consumption	1000 m^3	**3**	**2**		**3**	**3**
VENEER SHEETS						
Production	1000 m^3	**33** C	**29** C		**30**	**30**
Imports	1000 m^3	**21** C	**14** C		**15**	**15**

Exports	1000 m^3	**21** C	**21** C		**20**	**20**
Apparent consumption	1000 m^3	**33**	**23**		**25**	**25**
of which, tropical veneer sheets						
Production	1000 m^3	**0** E	**0** E		**0**	**0**
Imports	1000 m^3	**2**	**1**		**1**	**1**
Exports	1000 m^3	**0**	**0**		**0**	**0**
Apparent consumption	1000 m^3	**2**	**2**		**1**	**1**
PLYWOOD						
Production	1000 m^3	**60** C	**55** C		**50**	**50**
Imports	1000 m^3	**152** C	**185** C		**170**	**170**
Exports	1000 m^3	**34** C	**42** C		**40**	**40**
Apparent consumption	1000 m^3	**178**	**199**		**180**	**180**
of which, tropical plywood						
Production	1000 m^3	**0** E	**0**		**0**	**0**
Imports	1000 m^3	**8**	**14**		**10**	**10**
Exports	1000 m^3	**0**	**1**		**0**	**0**
Apparent consumption	1000 m^3	**8**	**14**		**10**	**10**
PARTICLE BOARD (including OSB)						
Production	1000 m^3	**495** E	**466** E		**460**	**460**
Imports	1000 m^3	**612**	**702**		**700**	**700**
Exports	1000 m^3	**62**	**50**		**50**	**50**
Apparent consumption	1000 m^3	**1 045**	**1 118**		**1 110**	**1 110**
of which, OSB						
Production	1000 m^3	**212** E	**250** E		**250**	**250**
Imports	1000 m^3	**82**	**85**		**80**	**80**
Exports	1000 m^3	**1**	**1**		**1**	**1**
Apparent consumption	1000 m^3	**294**	**333**		**329**	**329**
FIBREBOARD						
Production	1000 m^3	**115** C	**97** C		**100**	**100**
Imports	1000 m^3	**319** C	**313** C		**300**	**300**
Exports	1000 m^3	**106** C	**103** C		**100**	**100**
Apparent consumption	1000 m^3	**327**	**307**		**300**	**300**
Hardboard						
Production	1000 m^3	**26** E	**21** E		**20**	**20**
Imports	1000 m^3	**104**	**103**		**100**	**100**
Exports	1000 m^3	**14**	**7**		**5**	**5**
Apparent consumption	1000 m^3	**116**	**117**		**115**	**115**
MDF (Medium density)						
Production	1000 m^3	**71** E	**61** E		**60**	**60**
Imports	1000 m^3	**182**	**182**		**180**	**180**
Exports	1000 m^3	**84**	**88**		**80**	**80**
Apparent consumption	1000 m^3	**169**	**156**		**160**	**160**
Other fibreboard						
Production	1000 m^3	**18** E	**15** E		**15**	**15**
Imports	1000 m^3	**32**	**27**		**25**	**25**
Exports	1000 m^3	**8**	**8**		**8**	**8**
Apparent consumption	1000 m^3	**42**	**34**		**32**	**32**
WOOD PULP						
Production	1000 m.t.	**11 876** C	**11 858** C	**11 858**	**12 100**	**12 150**
Imports	1000 m.t.	**450** C	**470** C	**445**	**480**	**480**
Exports	1000 m.t.	**3 243** C	**3 151** C	**3 054**	**3 350**	**3 400**

Apparent consumption	1000 m.t.	**9 083**	**9 177**	**9 249**	**9 230**	**9 230**
PAPER & PAPERBOARD						
Production	1000 m.t.	**11 410** C	**11 298** C	**11 299**	**11 550**	**11 600**
Imports	1000 m.t.	**912** C	**853** C	**733**	**750**	**750**
Exports	1000 m.t.	**10 107** C	**10 451** C	**10 006**	**10 300**	**10 350**
Apparent consumption	1000 m.t.	**2 215**	**1 700**	**2 026**	**2 000**	**2 000**