

## **ESTONIA**

### **COUNTRY MARKET STATEMENT**

**65-th session of Timber Committee, 08.-12. October 2007 Geneva**

#### **1. General economic trends affecting the forest and forest industries sector**

**Gross domestic product** In 2006, Estonia's economic growth accelerated to 11.4% level. This acceleration was driven by an increase in domestic demand to 15,1% level compared to 2005. Rise in domestic demand was mainly driven by increased private consumption and investment activity, growth was supported by increased government sector (public administration, national defence and social insurance, health care and social welfare) final consumption expenditures.

Manufacturing industry had biggest share in economic growth, increase in sector (12,8%) was supported by high domestic demand and export growth. Domestic trade grew 12,6% (increased sales volume and productivity), real estate sector 9,7% (continuing booming in real estate market), transport and communication 10,9% (increased volumes and developing storage facilities), financial intermediation 22,8% (active lending and leasing), construction 13,3%. Added value of the primary sector remained at the year 2005 level due to decreased production.

The Ministry of Finance forecasts an 8,1% economic growth for 2007 (7,3% in 2008). Economic growth is based on domestic demand components (private consumption, investments, government sector final consumption expenditures) and exports, although their growth rates will decelerate. Domestic demand's growth rate of 13.2% is faster than the growth of the overall economy in 2007, mostly due to strong growth of private consumption and investment. In 2008 the growth of domestic demand should decelerate, therefore its contribution to the economic growth will remarkably decline compared to 2007. In the medium term, the growth rate of domestic demand should remain lower than the average growth of the economy.

**Private consumption** The growth of domestic demand (15,1%) was much higher than the average economic growth and reached 107,4% level from GDP. The increased domestic demand was supported by increased growing private consumption and investment activity, the share from the economic growth was 8,5% and 6,4% respectively. The real growth of private consumption accelerated to the 15,8% level and was induced by increased salaries, decreased employment rate and direct tax burden. Private consumption's growth will slightly decelerate in 2007 (to 14.8%, compared to 15.8% in 2006), but is still remarkably stronger than GDP's growth rate. In addition to strong growth of wages, private consumption is supported by consumer belief in the continued good times of the economy and ongoing rise in their incomes. Despite some anxiety in the real estate market, rapid growth and high level of the value of real estate so far positively affects consumption propensity. In the coming years, the growth of consumption will be restrained by the stabilisation of employment, declining growth of wages as well as increasing debt servicing costs.

**Investments.** Annual investments growth accelerated to 19,7% in 2006. Growth was induced by enterprises. The increased demand in the domestic and foreign markets and the booming real estate business gave an impetus to enterprises to make capital investments (15% growth rate). Continuously high demand for residential houses supported the high level of housing investments. The increased support from Structural Funds and the higher absorption capacity of these funds brought about a vigorous rise of investments in the government sector.

The growth of investments will decelerate from 15.0% in 2007 to 9.3% in 2008. This year the investment growth is more based on companies servicing the domestic market, although the investment activity in exporting firms is growing. Next years will bring the slowing growth of investments as the growth of borrowing will be more modest and the real estate market cools down. Rapidly growing production costs force companies to invest more to capital-intensive production. Government investments are pushed by the increasing role of the EU funds, accompanied by the new EU financial perspective.

**Balance of payments** Imbalance of current account deficit amounted to 14,8% of the GDP in 2006. Current account deficit is expected to be at 16,8% level in 2007 and then gradually decrease in 2008–2011.

**Foreign trade** Due to the positive economic development of the main trade partners of Estonia (Finland, Sweden, Russia, Latvia and Lithuania) and the good situation of the economy of the United States, Asia, East-Europe<sub>1</sub>

and CIS countries, the foreign demand remained high in 2006. The growth of export decreased in 2006 compared to 2005 due to somewhat decreased competitiveness of Estonian goods in foreign markets. The growth of import accelerated during the same period and was higher than export growth in 2006. Imports were supported by active foreign direct investments' activities, high domestic demand and favourable loan conditions. As a result the deficit of trade balance (45.8 bn EEK) increased by 50% compared to year 2005. Trade with machinery, equipment and transport means count for about a half of the deficit. Throughout years, Estonia has had a surplus trade balance in wood and wood products, furniture and loghouses. Total trade turnover was 284.8 bn EEK and it grew by a quarter if compared to year 2005. Export value was 119.5 bn EEK (42% of turnover) and import value 165.3 bn EEK (58%). The growth rate of exports of goods and services will decline in 2007 due to a sharp decrease in the growth of exports of two main product groups (transit of mineral fuel and subcontracting of electronics equipment). The export of the rest of the products remains strong. In 2008 the growth of exports is expected to slightly accelerate. In the medium term the growth of exports should remain lower than its average due to some problems in the restructuring process of the economy. The growth of imports of goods and services is also expected to decelerate in forthcoming years due to slower growth rates of domestic demand as well as exports.

**Export** Exports grew to 79.4% of the GDP in 2006. Real growth of export of goods and services accelerated to 23.5%; export of goods grew by 22.7% and export of services by 9% in 2006. In 2006, all commodity groups showed an increase in export except textile and textile products.

Exports of wood and articles of wood amounted to 14 bn EEKs. Compared to the previous year, exports increased 3% (by 359 million EEK). Exports of wood and articles of wood accounted for 11% of the total value of exports of Estonia. Sawn timber (22%), builders' joinery and carpentry of wood (16%) and wooden furniture and parts thereof (12%) made up the largest proportions of the exports of wood and articles of wood at current prices. Export of roundwood has decreased remarkably in last 5 years, the trend continued in 2006 (1, 5 million m<sup>3</sup> of roundwood was exported, decrease was 18% by value). Export of furniture and wooden houses grew slightly in 2006.

In 2006, the share of the European Union in Estonia's export was 65% (decreasing by 13% compared to 2005). Export to NAFTA countries increased 2.3 times and to CIS countries 50%

The growth of export will slow down in 2007, due to the lower international competitiveness of domestic labour intensive companies and decreasing growth of export of mineral fuels

**Import** Acceleration of real growth of import in 2006 to 28,8% was due to the speedier growth of domestic demand. Import increased in all commodity groups. The rapid growth of import demand was influenced by the swinging inflow of foreign direct investments and the increased private consumption. The accelerated export growth brought about increased import of raw materials and intermediate goods.

In 2006 imports of wood and articles of wood were 5.4 bn EEK. Compared to 2005, imports increased 18% (by 824 million EEK). The share of imports of wood and articles of wood in the total imports of Estonia was 3.3%. The largest proportion of imports of wood and articles of wood had sawn timber (31%, imports increased compared to 2005 30%), roundwood (26%, increase compared to 2005 5%, 88% imported from Russia) and plywood, veneered panels and similar laminated wood (11%). In 2006 imports of wood in the rough, whether or not stripped of bark or sapwood or roughly squared increased 5%, the absolute increase was 67 million kroons. The main country of consignment was Russia. Imports from that country increased 12%, the absolute increase was 137 million kroons. The share of Russia increased from 82% in 2005 to 88% in 2006.

The share of the EU in Estonia's total import fell by a couple of percentage points, to 74%. Import from the EU grew compared to 2005, by 26%. The share of CIS countries in imports was 16%, imports from CIS grew compared to 2005 by 77%. The biggest import partner was still Finland. Russia rose to the second position, pushing Germany to the third place. Import from Russia grew 1.8 times during the year; mineral fuels constituted almost 2/3 of the volume and wood and wood products 13%.

The growth of import will slow down in 2007, due to the declining growth rate of domestic demand and exports, but will still exceed the growth of exports. Growth of imports will be supported by the high level of private consumption, capital investments in technology and continuous inflow of EU structural funds' means.

**Labour market** Growth in the employment rate continued in 2006 – number of employed increased 6,4% . Unemployment rate dropped to 5,9% level. The number of employed persons reached 646 000 in 2006, with highest growth in trade, construction and manufacturing industry.

It is predicted that the number of employed will stay at high level and even increase (1,2% in 2007 and 0,4% in 2008). At the same time unemployment rate will decrease to 5.3% in 2007. In the construction business and in several other sectors (including forestry) exists the shortage of qualified labour (structural shortage of workforce). After Estonia's accession to the European Union a part of qualified workforce moved to work in opened foreign labor markets (at least 3% of labour moved to work abroad), making it difficult for local companies to find employees. Decreasing

number of unemployed, competition with open labour markets of neighbouring countries and Estonian inflation pressures result in an accelerating growth of gross wages in real terms – to 13.5% in 2007. The growth of labour costs in 2007-2008 will exceed the growth of value added, which then causes the loss of international competitiveness of firms based on cheap labour-intensive production.

**Consumer price index** CPI increased from 4.1% in 2005 to 4.4% in 2006. External factors - prices of energy and foodstuff - and increased domestic demand has not enabled to slow down the CPI growth. Booming real estate market deepened the trend.

Inflation will accelerate to 6.1% in 2007 and to 7.4% in 2008. As inflation will not slow down to possible reference value (which is around 3%), fulfilling the Maastricht's price stability criterion, the joining to the Euro zone is problematic.

**Manufacturing** Sales of the manufacturing have grown by more than 3 times during the last decade. Wood processing industry has been among the most quickly developing branches. The year 2006 was again successful for the manufacturing industry – sales volumes grew by 14% and production volumes by 8% (at constant prices) compared to year 2005; investments also continued to grow. Due to the strong demand (both domestic and foreign), high raw material prices and the increased labour costs the producer prices in manufacturing industry rose by 5.4% compared to the previous year. 60% of all sales of manufacturing sector were exported.

Sales exceeded the 2005 level the most in paper industry (increase by 44%), rubber and plastic industry (30%) non-metallic mineral products (27%). The sales of wood processing industry increased 13% and of furniture industry 4%.

Investments in fixed assets in the processing industry increased by 9% compared to the year 2005. Half of the sector investments were made in food, wood and building materials processing industries. According to the survey conducted by the Estonian Institute of Economic Research companies indicated that lack of raw materials and workforce was the main growth inhibiting factor.

Manufacturing industry will grow 10.4% in 2007 and 9.8% in 2008. During the period 2007–2011 the growth of manufacturing will outpace the growth of the overall economy although its growth rate decelerates compared to 2006, because of the developments in domestic and foreign markets. During the forecast period the growth of the services' sector will decelerate and its growth rate will be smaller than the growth rate of the overall economy. Cooling real estate market as well as decreasing private consumption activity is expected to lower the growth rates of the real estate and financial activities, but also the growth of construction and domestic trade.

**Wood industry** The wood industry is one of the largest industries in Estonia – about 1000 enterprises, employment over 19000 people. In 2001–2006 the output volumes grew by almost 1.5 times and the share of exports in total sales has risen to 66%. The Estonian wood industry is closely related to the Scandinavian wood sector through ownership relations. The assortment of the wood industry's products is comprehensive, ranging from sawn timber production and processing to manufacture of loghouses, windows and doors.

Year 2006 was controversial for wood industry; their sales grew both in export and domestic markets and the employment in sector grew but the problems arose with the raw materials' (timber) supply in second part of the year. In 2006, the sales of the wood industry grew by 13% compared to the previous year and the output volumes at constant prices increased by 6%. Domestic sales grew considerably, slower was the growth in export markets. Growth of the production volumes dropped due to the shortage and price increase of timber. Due to the continuously dropping felling volumes in Estonian forests (especially in private forests) since 2000, the competition for timber has become fiercer; small businesses find it especially hard to get raw materials. At the same time the share of imported raw materials has grown, primarily from Russia. In 2007, the mild winter and risen Russian export tariffs make the situation in the wood supply even worse. Prices for the timber rose dramatically, similar trend continued in the 2007. Producing prices were 6% higher in 2006, in the first months of the 2007 the price increase reached 15–20%.

About 2/3rds of the wood industry output was exported in 2006, most to the Scandinavian countries, Germany and the UK. Sawn timber, joinery and carpentry products and the loghouses were the main export commodities. Biggest increase took place in export of glue-laminated wood, wooden packing and containers and fuelwood.

In 2006, the investments of the wood sector increased 45%. Compared to other branches of the processing industry, the wood industry has made quite intensive investments in fixed assets in recent years. Entrepreneurs forecast the growing export and production volumes, the growth will be determined by the to raw material supply in 2007.

**Paper industry** There are about 50 paper, pulp or paper products enterprises in Estonia, with a workforce of 1800 people. In the years 2001–2006 the output of the paper industry grew by a third. Paper industry is a heavily concentrated industry in Estonia – the two larger companies give over half of the total turnover. Most of the companies

make paper products from imported paper.

Sales of paper industry have grown thanks to export (more than 70% of the output is exported) but the demand in the domestic market for paper products is also growing. The consumption of paper per person in Estonia is quite low (by more than two times lower than in Europe's average). In 2006, the sales of the paper industry exceeded that of 2005 by a quarter. The results of the sector were heavily influenced by the opening of the new aspen pulp factory Estonian Cell in Kunda. Output volumes of sector grew by 23% at constant prices. The increased sales were triggered mostly by the export, main export destinations were Germany, Netherlands and Italy. The share of Finland in export decreased. Uncoated paper and paperboard and wood pulp make up 3/4 of exports

Paper industry investments in fixed assets decreased considerably in 2006 as a result of the high investment level in 2005 – construction of a new pulp factory in Kunda (the second largest foreign investment in Estonia). In September 2006, Estonian Cell's aspen pulp mill in Kunda was launched – yearly capacity 140 000 tons of mechanical wood pulp using 380 000 m<sup>3</sup> of aspen pulpwood. Investments in machinery grew 50% in 2006

It is expected that positive developments will continue in the paper industry in the near future, backed by the stable demand for paper and paper products in the global market.

Furniture industry More than 400 enterprises (employment about 9000 persons) engage in furniture manufacturing. In the years 2001–2006, production volumes at constant prices have grown by 20%; 2/3 of the output is exported. Output has grown due to the exports but in recent years the domestic demand has grown as well. In export markets competition with furniture manufacturers from China, Poland and other countries has considerably tightened.

Furniture sales grew moderately (4%) and production figures remained at year 2005 level in 2006. Domestic sales supported growth; export remained at the previous years' level. Most of the furniture made in Estonia is exported to the Nordic countries, Germany and UK. Export to Russia increased 2 times but to Germany decreased considerably in 2006. Bolstered seats with wooden frame, dining room and living room furniture and furniture details were the most important export articles.

The investment activity of furniture manufacturing companies was still high (40%), wages and productivity grew. 90% of investments were made for purchase of machinery and equipment and for building activities. Number of employed decreased by 10% in 2006. Companies forecast an increase in output in 2007.

Construction Estonian construction sector is oriented mainly to the domestic market and influenced by the general development of Estonian economy. Recent years have witnessed a rise in construction volumes of housing and facilities. First signs of stabilisation came at the end of year 2006. Both the construction companies and building material producers increased their sales in 2005. Turnover, construction volumes and investments increased but continuous deficit of labour caused increased labour cost by 18,7%. Construction was mainly focused on buildings, especially housing. The rapid development of real estate market continued but cooling effect is expected in 2007 – somewhat stricter rules were already established by banks for lending and leasing. The total turnover of Estonian construction companies in 2006 was by 30% higher than in 2005. The added value of the construction sector was by 12.4% higher than the year before.

Construction price index rose by 10.3% in 2006 and is expected to grow further in 2007. The sales of building materials rose by 25.8%, the price of building materials increased 6.1% in 2006. Several new building materials' processing industries were opened.

Construction volume index grew both in respect of buildings and facilities, by 20,4% and 26,4%, respectively. The growth was driven by the implementation of infrastructure projects co-financed by the EU was continued and finishing of the big projects which started in previous period.

Forecasts show that the construction market will grow more rapidly than the economy on the average in the next years. The development is backed by additional investments in the infrastructure and the increasing demand for housing. However, shortage of labour and the continuously rising prices of construction are seen as factors inhibiting the construction activity. Although the number of the employed increased by 15% compared to 2005, estimations of companies show that thousands of workers left Estonia for other countries because of a higher salary.

- Sources:
1. „2006. aasta majandusülevaade” (*Economic Survey of Estonia 2006*), Ministry of Finance, Ministry of Economic Affairs and Communications, Tallinn 2007. available at <http://www.mkm.ee/index.php?id=1323>
  2. „Rahandusministeeriumi 2007. aasta suvine majandusprognoos” (Ministry of Finance Summer 2007 Macroeconomic forecast), Tallinn August 2007. available at: <http://www.fin.ee/?id=263>  
<http://www.fin.ee/?id=619>
  3. “Väliskaubandus 2006/Foreign trade 2006”, yearbook of the Estonian Statistical Office, Tallinn 2007.

## 2. Policy measures

### Legal measures

The new Forest Act was adopted by the Parliament in June 2006 (valid since 1-st of January 2007). In the Act several new or more detailed rules for forest management were made and procedures set up. Forest Act and related regulations are the legal basis for the sustainable forest management in following years.

### Forest law enforcement, governance and trade

Several measures have been taken to guarantee the sustainable forestry practice in Estonia: quick and easy access has been made available to forest inventory data for forest administration and public, capacity building in forest administration institutions have taken place, cooperation between governmental institutions have been set up to fight illegal activities in forestry, counselling and training of forest owners is continuously proceeds

## 3. Developments in forest products markets sectors

### A. Wood raw materials (e.g. roundwood: sawlogs, and pulpwood and fuelwood)

After the peak of fellings at the end of 90-ies the felling volume stabilized for couple of years at about 12 million m<sup>3</sup> level and decreased considerably in recent years. Highest felling levels were in the situation where:

- a) due to the progressing land reform yearly „new” forest land was obtained by owners and entered to the land and forest management market;
- b) wood industry developed rapidly capacity and was in need for further supply;
- c) changed economic system caused big changes in society and lot of people were in need of „starting capital”;
- d) “new owners” had the possibilities for wood procurement without previous investments into the silviculture.

In recent years the pace of land reform slowed down but there is still some 0,35 million ha (15,3% of total forest land area) out of active management. Intensive cuttings were concentrated on acquiring of the coniferous logs i.e. the main material to sawmilling. In recent years the structure of produced materials has slightly changed: the share of logs is decreasing and of small logs is increasing, share of pulpwood has remained relatively stable and the share of fuelwood increasing. At the same time the industries have adapted to the changes and use extensively the small logs.

In 2006 the removals accounted for 7 million m<sup>3</sup> in Estonia remaining at the year 2005 level; one third of that was harvested in state and 2/3 in other forests. To cover the shortage for roundwood the wood industry companies have increased significantly the import volumes. Felling volume in 2007 is expected to be at the same level. Mild winter of 2006/2007 and posed Russian export tariffs give no optimism for growth in 2007 result. Despite the record high price level for roundwood the outlook for the roundwood supply coming years is modest. Unfavourable tax system in wood sales for private owners and expected high Russian tariff rises will make situation even worse in coming years.

Volume of imported coniferous roundwood remained at the year 2005 level in 2006, relevant figure for non-coniferous roundwood decreased by 20%. Altogether 1.5 million m<sup>3</sup> of coniferous roundwood and 0.3 million m<sup>3</sup> of non-coniferous roundwood was imported in 2005 (mostly from Russia) and continuation of similar import trend is unlikely, decrease in import of roundwood is expected. Export of roundwood has decreased considerably in last 5 years and is expected to remain at similar low level in 2007. 1.6 million m<sup>3</sup> of pulpwood and 0,07 million m<sup>3</sup> of logs was exported in 2006. The use of non-coniferous logs is still relatively small compared to the resource. Low investments in silviculture of non-coniferous species in past decades result in poor quality of timber and small amount in good quality sawlogs. Low demand for certain tree species' logs (aspen) makes the picture even worse. Often log-quality material is used for fuelwood. At the same time there is strong demand for quality birch and alder logs. Some of niche products use only small quantities of non-coniferous logs (wood products for sauna, specific furniture projects etc). New aspen pulp mill enables better use of aspen resources. Increased demand of wood fiber as energy may induce competition among lower quality roundwood sortments (e.g. fuelwood vs wood for panel industry)

In case of pulpwood there is contrasting situation with low domestic demand, big export and small import quantities. Pulpwood is exported mainly to Scandinavia. The export of pulpwood will decrease to 1,35 million m<sup>3</sup> level in 2007. High import figures in 2006 of pulpwood can be attributed to the misclassification in trade statistics. Otherwise there is no good explanation to this change (no big changes in the use pattern of industries), most probably much of it will be used as small logs.

The share of removals of fuelwood has remained at level of 2 million m<sup>3</sup>/year. Remarkable price accelerations of competitive energy carriers (especially of oil and gas), decreased felling volume and promoted renewable energy policies have developed the importance and demand for wood for energy purposes. Better use of low quality wood by different industries in the condition of scarce recourses has given extra push to the price increase for fuel wood.

After the decade of rapid development in forest sector in 2005 Estonia changed from the roundwood net exporter to the net importer (import volume decreased by 21% compared to year 2004). The similar trend continued in 2006.

## B. Wood energy

Wood fuel, wood waste (including chips) and wooden briquette/pellets are the 3 main wood-based energy products produced in Estonia. According to latest available energy balance one of the main uses of the wood as energy is heat generation. There were 738 boilers working with wood in 2006 (792 in 2002) that is 19% from total number of boilers. There were 343 wood using boilers in industry sector, 107 in energy sector, 66 in agriculture, 19 in transport and 203 in commercial and public services sector. Total capacity of wood using boilers was 799 MW i.e. 15% from total capacity of boilers; 1677 GWh heat was generated in 2006 (26% from total heat generation) using 7330 TJ of wood fuel (27% from total used fuel for heat production). 69 000 m<sup>3</sup> of fuelwood, 1,13 million m<sup>3</sup> of wood waste and 2000 tons of wooden briquette/pellets were used for heat generation in 2006. 26% of the total heat generation based on wood fuels.

Gross inland consumption of fuelwood was 1,53 million m<sup>3</sup> in 2006, 91% (1,39 million m<sup>3</sup>) of that in households, 1% (10000 m<sup>3</sup>) in commercial and public services, 2% by industry (27 000 m<sup>3</sup>, of which 23 000 m<sup>3</sup> by wood processing industry), 5% by energy sector (69 000 m<sup>3</sup> for heat generation) and 2% by agriculture (34 000 m<sup>3</sup>). 5% of fuelwood was consumed for conversion to other forms of energy (heat) and 95% for final consumption.

1,39 million m<sup>3</sup> of wood waste was used in 2006, 17% of that in households, 81% by energy sector (mostly for the conversion to heat) and 2% by wood industry. 1,13 million m<sup>3</sup> of wood waste was used for conversion to other forms of energy (1000 m<sup>3</sup> for energy generation and 1,125 million m<sup>3</sup> for heat generation). Final consumption accounted for 0,26 million m<sup>3</sup>, 0,02 million m<sup>3</sup> of that was used by wood industry and 0,24 million m<sup>3</sup> by households.

12 000 tons of briquette/pellets were used as fuel in 2006, 83% (10000 t) of that in households, 17% (2000 t) by energy sector for heat generation. Total production of briquette and pellets was 249 000 tons in 2006 (nearly 95% of that was exported). Shortage of saw dust forces the pellet producers to import part of the raw material.

In 2000–2006 the average prices of almost all fuels grew for the end-users. In 2006 compared to 2005, the prices of fuel oils, natural gas waste wood grew the most. There was a rise in the average prices of waste wood (19% compared to year 2005 and by 1,5 times compared to year 2000), the price of the fuelwood has increased by 2,7 times from 2000 due to the shortage of wood fibre supply and increased competition with other wood processing branches. Source: Energiabilanss. 2006. (Energy Balance), ISSN 1406-1635, ISBN 978-9985-74-421-5; Estonian Statistical Office, Tallinn 2007.

## C. Certified forest products

There are 3 forest management certificates and ca 860 000 ha of forest land certified according to the FSC scheme in Estonia (as of September 2007). Certified forest area accounts for 37% of total forest land area. Most of the FSC certified forests are managed by Estonian State Forest Management Centre – total certified area 1063000 ha of which 859 000 ha of forest land. 33 FSC chain of custody certificates have been issued to the companies acting in Estonia. C-o-c certificate holding companies represent wide scope of different wood sector branches: roundwood, firewood, edge-glued panels, fencing material, veneer, sawnwood, outdoor furniture, garden and playground equipment, bark residuals, printing and other products producers. So far the Smartwood and QUALIFOR programs have been used for certification. In 2006 Estonian FSC Working Group started to elaborate the Estonian National FSC standard.

PEFC certification is still not available in Estonia. Estonian PEFC Certification Scheme compliant with PEFC demands and provisions has been developed, passed international auditing process by Jaakko Pöyry Management Consulting and waits for the endorsement by PEFC Council. Single PEFC c-o-c certificate was issued by BVQI to Metsäliitto Eesti in December 2005

There is no significant demand for certified forest products in domestic market from end-users side. Demand is originating mainly from the further processing companies which supply the foreign markets and are in need of certified “raw material” e.g. sawnwood. Low interest in certification from forest owners’ side can be explained by the almost non-existing price-premiums at the roundwood production level, high costs of the certification and absence (so far) of suitable group certification scheme in Estonia.

## D. Value-added wood products

The manufacturing and trade of value-added products have increased considerably in Estonia. Decreasing raw material supply, increasing labour costs and competition in the market of primarily processed products have forced producers to invest in value-adding.

Wooden furniture have had relatively stable production volume (sales value close to 2 bn EEK level in last four years), production has decreased from 2.9 mln pieces in 2001 to 2,1 million pieces in 2006. Export value of wooden furniture was 1.68 bn EEK i.e. 12% from total export value of wood and wooden products in 2006; relevant figures for import were 0.5 bn EEK and 10%.

There has been rapid growth of joinery and carpentry products: production of wooden window frames in 2006

increased by 2.2 times in 2006 compared to year 2000, of doors by 3.3 times, of wooden details by 4 times and of glue laminated timber by 3,7 times. The share of joinery and carpentry products was 15.7% from the total value of wood products exports in 2006 (5% in 2000) and similar share for imports was 7.5% (7,3%).

Production of further processed sawnwood has increased by 6.2 times compared in 2006 to 2000. The share of further processed sawnwood was 5.9% from the total value of total wood products exports (2.5% in 2000) and similar share for imports was 1.2%.

Production of prefabricated wooden buildings has increased by 3,9 times in 2006 compared to 2000. The share of prefabricated wooden buildings was 11.9% from the total value of wood products exports (5.2% in 2000) and similar share for imports was 1.4%.

#### E/F. Sawnwood

Sawnwood production has increase throughout the last decade, although the growth rate has decelerated in recent years due to the rising competition and shortage of raw material. About 2.1 million m<sup>3</sup> of sawnwood was produced in 2006 (94% of that is coniferous) that is 33% higher than in year 2000. Despite the efforts the share of non-coniferous sawnwood production remains lower than expected due to the low quality of logs and small supply of good quality logs. In 2006 the production of non-coniferous logs decreased by 25%. Small volume of quality non-coniferous logs covers the niche products' manufacturing needs and do not provide source for sustained growth.

Steady growth of sawnwood imports (0,75 million m<sup>3</sup> in 2006 i.e. 20% more than in 2005) indicate increased domestic demand from further-processing companies and of growing domestic consumption (see point D Value added products). Sawnwood exports decreased by 14 % from 1.14 million m<sup>3</sup> in 2005 to 0.97 million m<sup>3</sup> in 2006. The share of sawnwood exports value from the total value of wood products exports has increased from 17.1% in 1995 to 20.9% in 2006, similar figures for import of sawnwood are 8.6% and 30.9%

Production of sawnwood is expected to stay at the year 2006 level in 2007. Import of sawnwood is forecasted to rise about 13% while exports will decrease by 5% in 2007.

#### G. Wood-based panels

The production of plywood decreased 20% (to 54 000 m<sup>3</sup> level) in 2006 compared to 2005, imports decreased 2% and exports increased by 13%. Growth rates in 2007 will increase 40%, 1% and 23% level respectively. Plywood production is influenced by birch veneer logs' shortage in domestic market. Share of value of plywood exports from total value of wood products export was 3%, share of imports 10.8% in 2006.

The production of particle board was 249000 m<sup>3</sup> in 2006 (8% increase compared to 2005), imports increased 36% compared to year 2006 level and exports increased by 9%. Growth rates for production (5%), imports (6%) and exports (4%) have been projected to the 2007. Share of value of particle board exports from total value of wood products export was 3.4%, share of imports 3,2% in 2006.

The production of hardboard decreased 7% (to 57000 m<sup>3</sup> level) in 2006 compared to 2005, imports increased by 38% and exports increased by 9%. Hardboard production line was closed at the end of 2006. There will be no production forecasted for year 2007. Growth rates in 2007 will be for import 26% and export -90%.

The production of insulating board increased 9% (to 38000 m<sup>3</sup> level) in 2006 compared to 2005, imports increased by 87% and exports decreased by 3% compared to year 2005. Production will increase 5% in 2007, imports will rise by 12% and exports by 4%. New production line of insulating boards will start to work in 2008 with yearly output 20000 tons.

Share of value of fibreboard exports from total value of wood products export was 1,6%, share of imports 4,0% in 2006.

#### H. Pulp and paper

Production of pulp increased remarkably in 2006 due to the opening of new thermo-mechanical aspen pulp mill (alkaline peroxide mechanical pulp (APMP) technology, annual capacity of 140 000 tons of aspen pulp) in Kunda. Kunda factory produced 67 000 tons of wood pulp in 2006. **Production of** unbleached coniferous chemical wood pulp was 69 000 tons in 2006. There was big increase in export of pulp in 2006 (51000m<sup>3</sup> was exported) and only minor import of pulp (less than 3000 tons) . New aspen pulp mill using the alkaline peroxide mechanical pulp (APMP) technology was opened in September 2006 in Kunda.

Paper production which includes mostly the unbleached kraft sack paper production increased 13% in 2006. Imports increased 48% and exports of paper and paper products 35%. The production is expected to grow 10%, import 8% and export 11% in 2007

## GDP Forecast for 2005–2011

(percentage)

	2005	2006	2007*	2008*	2009*	2010*	2011*
1. Growth of real GDP	10.5	11.4	8.1	7.3	6.8	7.2	7.0
1a. GDP in real terms (bln EEK)	142.0	158.1	171.0	183.5	196.0	210.1	224.9
2. Growth of nominal GDP	18.0	18.2	17.2	14.5	12.6	11.2	10.7
2a. GDP in nominal terms (bln EEK)	173.1	204.6	239.6	274.4	308.9	343.5	380.4
2b. GNI in nominal terms (bln EEK)	164.3	195.1	228.4	261.0	294.0	327.2	362.5
<b>Components of real GDP</b>							
3. Private consumption expenditure (incl. non-profit organisations)	7.9	15.8	14.8	6.8	7.0	6.9	6.5
4. Government final consumption expenditure	1.1	2.8	3.5	1.4	1.8	2.3	2.6
5. Gross fixed capital formation	12.7	19.7	15.0	9.3	7.0	7.3	7.3
6. Changes in inventories (% of GDP)	4.2	4.3	4.3	3.8	3.6	3.6	3.5
7. Exports of goods and services	21.5	10.0	7.9	8.6	8.3	8.3	8.2
8. Imports of goods and services	15.9	14.7	13.5	7.5	7.4	7.4	7.3
<b>Contributions to real GDP growth <sup>1)</sup></b>							
9. Domestic demand (without inventories)	8.8	15.4	14.1	7.7	7.1	7.2	7.0
10. Changes in inventories	-0.7	0.6	0.4	-0.3	0.1	0.2	0.1
11. Ext. balance of goods and services	3.1	-5.2	-6.4	-0.2	-0.3	-0.1	-0.1
<b>Value added growth</b>							
12. Primary sector	2.3	0.2	-3.1	2.2	1.8	2.0	2.0
13. Industry	11.7	11.9	9.0	9.2	8.9	9.0	8.9
14. Construction	19.8	13.3	12.9	10.2	9.2	9.0	9.3
15. Other services	10.6	10.9	8.0	6.8	6.1	6.6	6.3

*1) Contribution to GDP growth indicates the share of a specific field in the economic growth. It is calculated by multiplying the field's growth with its share in GDP. The sum of the fields' share makes up the economic growth (the reason for a little difference is a statistical error – the part of GDP that could not be divided between the fields).*

*Source: Ministry of Finance of Estonia, Statistical Office of Estonia*

Forest products production and trade in 2006, 2007 and 2008.

TC1-Estonia

Roundwood

Product Code	Product	Unit	Revised	Estimate	Forecast
			2006	2007	2008
<b>1.2.1.C</b>	<b>SAWLOGS AND VENEER LOGS, CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	2 700	2 800	2 850
	Imports	1000 m <sup>3</sup>	1 191	1 100	1 050
	Exports	1000 m <sup>3</sup>	5	5	5
	Apparent consumption	1000 m <sup>3</sup>	3 886	3 895	3 895
<b>1.2.1.NC</b>	<b>SAWLOGS AND VENEER LOGS, NON-CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	420	480	500
	Imports	1000 m <sup>3</sup>	70	60	60
	Exports	1000 m <sup>3</sup>	2	2	2
	Apparent consumption	1000 m <sup>3</sup>	488	538	558
<b>1.2.1.NC.T</b>	<b>of which, tropical logs</b>				
	Imports	1000 m <sup>3</sup>	0	0	0
	Exports	1000 m <sup>3</sup>	0	0	0
	Net Trade	1000 m <sup>3</sup>	0	0	0
<b>1.2.2.C</b>	<b>PULPWOOD (ROUND AND SPLIT), CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	630	630	650
	Imports	1000 m <sup>3</sup>	315	300	300
	Exports	1000 m <sup>3</sup>	700	650	650
	Apparent consumption	1000 m <sup>3</sup>	245	280	300
<b>1.2.2.NC</b>	<b>PULPWOOD (ROUND AND SPLIT), NON-CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	850	900	900
	Imports	1000 m <sup>3</sup>	233	150	150
	Exports	1000 m <sup>3</sup>	899	700	700
	Apparent consumption	1000 m <sup>3</sup>	184	350	350
<b>3 + 4</b>	<b>WOOD RESIDUES, CHIPS AND PARTICLES</b>				
	Domestic supply	1000 m <sup>3</sup>	3 300	3 300	3 300
	Imports	1000 m <sup>3</sup>	145	150	150
	Exports	1000 m <sup>3</sup>	1 404	1 400	1 400
	Apparent consumption	1000 m <sup>3</sup>	2 040	2 050	2 050
<b>1.2.3.C</b>	<b>OTHER INDUSTRIAL ROUNDWOOD, CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	100	100	100
<b>1.2.3.NC</b>	<b>OTHER INDUSTRIAL ROUNDWOOD, NON-CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	50	50	50
<b>1.1.C</b>	<b>WOOD FUEL, CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	430	450	460
<b>1.1.NC</b>	<b>WOOD FUEL, NON-CONIFEROUS</b>				
	Removals	1000 m <sup>3</sup>	620	690	690

Product Code	Product	Unit	Revised	Estimate	Forecast
			2006	2007	2008
<b>5.C</b>	<b>SAWNWOOD, CONIFEROUS</b>				
	Production	1000 m <sup>3</sup>	1 910	1 900	1 900
	Imports	1000 m <sup>3</sup>	654	750	750
	Exports	1000 m <sup>3</sup>	847	800	800
	Apparent consumption	1000 m <sup>3</sup>	1 717	1 850	1 850
<b>5.NC</b>	<b>SAWNWOOD, NON-CONIFEROUS</b>				
	Production	1000 m <sup>3</sup>	120	120	120
	Imports	1000 m <sup>3</sup>	99	100	100
	Exports	1000 m <sup>3</sup>	123	120	120
	Apparent consumption	1000 m <sup>3</sup>	96	100	100
<b>5.NC.T</b>	<b>of which, tropical sawnwood</b>				
	Production	1000 m <sup>3</sup>	0	0	0
	Imports	1000 m <sup>3</sup>	1	1	1
	Exports	1000 m <sup>3</sup>	0	0	0
	Apparent consumption	1000 m <sup>3</sup>	1	1	1
<b>6.1</b>	<b>VENEER SHEETS</b>				
	Production	1000 m <sup>3</sup>	26	30	32
	Imports	1000 m <sup>3</sup>	5	5	5
	Exports	1000 m <sup>3</sup>	12	14	15
	Apparent consumption	1000 m <sup>3</sup>	18	21	22
<b>6.1.NC.T</b>	<b>of which, tropical veneer sheets</b>				
	Production	1000 m <sup>3</sup>	0	0	0
	Imports	1000 m <sup>3</sup>	0	0	0
	Exports	1000 m <sup>3</sup>	1	0	0
	Apparent consumption	1000 m <sup>3</sup>	-1	0	0
<b>6.2</b>	<b>PLYWOOD</b>				
	Production	1000 m <sup>3</sup>	54	75	85
	Imports	1000 m <sup>3</sup>	124	125	125
	Exports	1000 m <sup>3</sup>	61	75	80
	Apparent consumption	1000 m <sup>3</sup>	117	125	130
<b>6.2.NC.T</b>	<b>of which, tropical plywood</b>				
	Production	1000 m <sup>3</sup>	0	0	0
	Imports	1000 m <sup>3</sup>	0	0	0
	Exports	1000 m <sup>3</sup>	0	0	0
	Apparent consumption	1000 m <sup>3</sup>	0	0	0
<b>6.3</b>	<b>PARTICLE BOARD (including OSB)</b>				
	Production	1000 m <sup>3</sup>	249	260	270
	Imports	1000 m <sup>3</sup>	42	45	45
	Exports	1000 m <sup>3</sup>	183	190	200
	Apparent consumption	1000 m <sup>3</sup>	108	115	115
<b>6.3.1</b>	<b>of which, OSB</b>				
	Production	1000 m <sup>3</sup>	0	0	0
	Imports	1000 m <sup>3</sup>	14	15	16
	Exports	1000 m <sup>3</sup>	7	7	8
	Apparent consumption	1000 m <sup>3</sup>	7	8	8
<b>6.4</b>	<b>FIBREBOARD</b>				
	Production	1000 m <sup>3</sup>	95	40	75
	Imports	1000 m <sup>3</sup>	43	51	56
	Exports	1000 m <sup>3</sup>	65	26	56
	Apparent consumption	1000 m <sup>3</sup>	73	65	75
<b>6.4.1</b>	<b>Hardboard</b>				
	Production	1000 m <sup>3</sup>	57	0	0
	Imports	1000 m <sup>3</sup>	28	35	40
	Exports	1000 m <sup>3</sup>	45	5	5
	Apparent consumption	1000 m <sup>3</sup>	40	30	35
<b>6.4.2</b>	<b>MDF (Medium density)</b>				
	Production	1000 m <sup>3</sup>	0	0	0
	Imports	1000 m <sup>3</sup>	11	11	11
	Exports	1000 m <sup>3</sup>	1	1	1
	Apparent consumption	1000 m <sup>3</sup>	10	10	10
<b>6.4.3</b>	<b>Insulating board</b>				
	Production	1000 m <sup>3</sup>	38	40	75
	Imports	1000 m <sup>3</sup>	4	5	5
	Exports	1000 m <sup>3</sup>	19	20	50
	Apparent consumption	1000 m <sup>3</sup>	23	25	30
<b>7</b>	<b>WOOD PULP</b>				
	Production	1000 m.t.	136	205	200
	Imports	1000 m.t.	3	3	5
	Exports	1000 m.t.	51	140	50
	Apparent consumption	1000 m.t.	88	68	155
<b>10</b>	<b>PAPER &amp; PAPERBOARD</b>				
	Production	1000 m.t.	73	80	90
	Imports	1000 m.t.	139	150	165
	Exports	1000 m.t.	108	120	140
	Apparent consumption	1000 m.t.	104	110	115