

MARKET STATEMENT OF THE CZECH REPUBLIC

1. Basic trends in the economic development of the Czech Republic, the country's position in the European Union, and the main trends in the development of forest production and forest-based industries in 2010.

The basic trends in the economic development in the Czech Republic, with respect to forest production and forest-based industries, indicate that, in contrast to the preceding three years and despite the still present impacts of the global financial crisis, the production is gradually increasing along with introduction of some more sophisticated products. The trends in foreign and domestic trade are also positive.

In the course of 2010, the economy of the Czech Republic was, with regard to the potentials of its growth, affected by unstable global development, mainly in the EU. Efficient growth of the global economy and trade have always been the decisive factors in the economy of the Czech Republic, influencing both its current revival and mainly its further dynamic and efficient development. Despite the achieved increase in the economic growth of the Czech Republic, its dynamics is still insufficient. The unbalanced revival of economy in the world also has an impact on the mentioned situation. The dynamics of the American and German economic development is slower than desired and drops rather than increases in the EU. Even China and India are experiencing an economic slowdown. Nevertheless, there is growing optimism.

The latest prediction, i.e. of April this year, of the Ministry of Finance of the Czech Republic states that the dynamics of GDP growth in the country noted a year-on-year increase in 2010 by 2.3% in constant prices of 2000. According to Eurostat, 27 countries of the EU (EU 27) recorded a year-on-year increase of GDP by 1.7%. Equal average growth was also achieved in 2010 in 12 countries of euro area (EA 12). An increment of 1.9 to 2.1% in this indicator is estimated for the Czech Republic in 2011, as opposed to 2010. However, this estimate of economy growth in the country is still imprecise. The potential drop in the demand for Czech goods abroad cannot be estimated due to the economic slump in Germany and due to unpredictable challenges of the euro area. The year-on-year increase in 2011 is presumed to reach 1.8% for EU 27 and around 1.7% for EA 12. Austria, a country comparable to the Czech Republic, reached a year-on-year increase of GDP by 1.8% in 2010, and estimates an increase by 1.8% in this year and by 2% in 2012. The prognosis for the Czech Republic talks about an estimated year-on-year increase of GDP for 2012 by 2.2 to 2.5%. For 2012, EU 27 supposes a growth by 2.1% and EA 12 by 2%. These predictions, however, do not reflect the currently known problems of Germany's economy, etc. In this period, the impacts of potential risks on the dynamics of development of the mentioned economies still cannot be estimated. These risks lie in the financial sector and manifest themselves in incomplete solutions and in potential impacts of high public debts within the EU, in unbalanced growth of development in the euro area, and in the mentioned unfavourable development of the economy dynamics in Germany. The indicated presumptions concerning the economic development are thus highly uncertain. In the Czech Republic, this uncertainty is also supported by the fact that approximately 60% of business entities in the country, which predominantly depend on the EU and are bound to the public budget, expect a fall in supplies to foreign countries as early as this year.

In terms of purchasing power parity, the Czech Republic reached in 2010 GDP 20,000 PPS per capita (PPS = purchasing power standard, i.e. amount of goods and services that can be bought for € 1 within EU 27). This rate of GDP per capita equals 76% of economic performance of EA 12. This year (2011), the Czech Republic is to reach 20,600 PPS (still 76% of EA 12 economic performance). However, estimates for 2012 are 21,300 PPS, i.e. 77% of EA 12. To compare the economic performance of some other former countries of the Council for Mutual Economic Assistance, and Greece and Portugal to EA 12, Slovakia reached 69% in 2010, Hungary 60%, and Poland 57%. Greece noted 81% of the EA 12 economic growth in 2010. This is, however, sharply falling due to the country's problems. Thus, at the end of this year or at the beginning of 2012, the Czech Republic will surpass the economy of Greece. Portugal achieved 74% of EA 12, which the Czech Republic will exceed this year, i.e. 2011.

Industrial production, namely manufacturing industry, still plays a crucial role in GDP formation in the Czech Republic. This has its historic tradition. The manufacturing industry generated, in 2010, up to 90% of increment in the gross value added of all Czech economy. The index of industrial production shows that the entire industrial production grew by 10.5% in 2010. This year, the manufacturing industry itself has represented a year-on-year increase in the dynamics of the Czech economy by 11.1%. The following sectors largely contributed to this growth: manufacturing of computers, electronic and optical devices (increase by 28.9%), manufacturing of basic metals, metallurgy and foundry industry (by 23%), automobile and trailer manufacturing (22.2%), manufacturing of metal structures and products (17.5%), and manufacturing of machinery and equipment (13.5%).

The increase in the sectors of manufacturing industry processing wood and wood products was as follows: in 2010, against 2009, wood processing and manufacture of wooden and cork products apart from furniture decreased the economy dynamics by 0.5%, manufacture of furniture by 9.2%, and manufacture of paper and paper products increased by 6.8%. Small and medium businesses in wood and furniture production experienced a rather negative period, mainly due to vast bankruptcies and limited production in the years of crisis. The year 2010 was characteristic with a lack of raw material and limited capital. Problems of these businesses persist in 2011.

The sector of forest production noted 16.7 million m³ of timber produced in 2010. This is a year-on-year increase by nearly 8%. Harvest of roundwood went up by 6.5%. This, however, still did not cover the drops caused by the global crisis. Against 2007, the timber harvest in the Czech Republic declined by 12.5% in 2008, and by 4.2% a year later. Harvest of roundwood fell by 15% in 2008 and by 0.8% in 2009. The Czech Republic, followed by Austria, was a country most affected by this crisis of the entire EU. The impacts of the crisis may be seen not only in timber harvest. It is also a long-term issue of low consumption of wood and wood products in the entire economy of the country. As a result, we do not process the domestic raw material for our own purposes but export it, regardless the still idle capacities. The Czech Republic annually exports 12 to 19% of roundwood, while the neighbouring Austria only about 5%. Austria itself thus processes and uses substantially more products of wood, a renewable raw material, partly also originating from the Czech Republic.

Industry and forest production will continue to have major significance for the Czech economy in the following years. So as to ensure higher acceleration of its growth, the Czech economy will constantly have to show higher rates of GDP growth against labour productivity. This will require better competitiveness, which may be mainly achieved through more innovations and production of highly sophisticated products with a high value added, and in the sector of forest production, through a clearly defined state forest policy. The EU has been addressing the issue of competitiveness for several years. The efforts made in this respect, however, still do not bring the desired results. For this reason, the Government of the Czech Republic adopted a concept of enhancing competitiveness of Czech industry until 2020. Solutions to the challenges posed by forest-based industries, including manufacture of furniture and forestry, should be sought with no delay and narrow cooperation with the EU is indispensable.

2. Measures adopted in the Czech Republic over the past 18 months to support market with forest and wood products

a) Measures within economic stimuli. In the past 18 months, several significant nationwide measures were taken in the sector of forestry and wood processing in the Czech Republic to foster the market and business within the frame of necessary economic stimuli. The measures were adopted by the Government of the Czech Republic and by the Ministry of Agriculture. By no means do these measures affect the free competition in trading these products reflecting the current supply and demand.

So called “Concept by the Ministry of Agriculture Concerning the Economic Policy of State Enterprise Lesy České republiky, Starting in 2012” represents one of the significant documents in the sector negotiated and adopted by the Government of the Czech Republic. This paper defines new and fundamental principles in the sector of forest management to be followed by organisation Lesy ČR, s.p., which manages state forests. This concerns over 1.3 million ha of state forest property, which is nearly 86% of all state forests in the country. One of the main principles of the document is to generate maximum financial means for the state from management, trading, environmental, and social activities. Special emphasis is given to increase competitiveness. The concept is to be implemented starting in 2012 and lays down individual and specific measures to be adopted by state enterprise Lesy ČR within its economic policy.

b) Measures related to climate change and supporting timber market. In the Czech Republic, this issue is mainly covered by the National Forest Programme, which was approved by the Government of the Czech Republic on 1 October 2008 and undergoes annual amendments. It is a conceptual programme to implement the principles of sustainable forest management and to enhance competitiveness of forestry. It comprises policy of climate protection, including environmentally oriented measures defined as recommendations for forestry practices. This programme implements the EU Forestry Strategy and the related EU Forest Action Plan. In the course of 2010, i.e. during the past 18 months, the necessary measures related to climate change and supporting the timber market were applied through measures of project NFP II. The situation concerning emission load on forests has been rather stable in the Czech Republic in recent years. Specific measures established by the Government helped reduce the amounts of SO₂, which had represented a significant threat for the Czech forests in the past. In 2010, the long-term emission limit of 20 µg.m⁻³ for the protection of vegetation was not exceeded. Neither the limits for NO_x were exceeded in the same year, except industrial zones and urban agglomerations. The concentrations were slightly over the limits in large cities, such as Prague, Brno and Ostrava. The situation concerning the ozone layer is worse. The limit value of AOT 40 exposure was exceeded in most of the country. It should be concluded that, besides the Ministry of Agriculture, selected offices of the Academy of Sciences of the Czech Republic address the issue of climate change in the Czech Republic and form appropriate measures in cooperation with faculties of forestry and wood sciences in Prague and Brno. Special attention is paid to the results of world conferences on climate change, mainly to the failure of negotiations in Copenhagen and the motivating agreement from Cancún.

c) Measures to support higher market efficiency and involvement of research and development. The efficiency of the market with forest and wood material and products is supported for business in the Czech Republic through respective funds, so-called operational programmes, and also through activities of specific research centres. Operational programmes are established by both the Ministry of Agriculture and the Ministry of Industry and Trade of the Czech Republic. The funds involve, e.g., the Rural Development Programme in the Czech Republic for 2007-2013, co-financed by the EU. The strategic goal of this programme is to enhance competitiveness in the forest sector, to

support development of dynamic business in forestry, to increase the efficiency of forest enterprises, to restructure the sector, and to improve protection of the environment and the landscape. The Supporting and Guarantee Agricultural and Forestry Fund operates to reduce the interest rates of loans, to secure bank loans, and to address financial support for insurance. Programmes are published by individual ministries for respective years or longer periods, which was also the case in 2010. This programme is mainly accessible for small and medium businesses in the given sector, which may enhance their efficiency, develop their business, and acquire advisory and other services. This group of manufacturers can mainly foster the efficiency of their production and sales, and improve their management. Other activities support know-how towards more sophisticated production, value added, labour productivity, and other opportunities to strengthen their position on the market. The selected research centres are Forestry and Game Management Research Institute (FGMRI), public universities, such as faculties of forestry and wood sciences in Prague and Brno, and private research organisations.

d) Measures to increase responsibilities of social associations (corporations). The issue was already mentioned in the Market Statement for 2009 and no substantial measures were taken within the past 18 months to foster the market with forest and wood products. In the Czech Republic, fourteen voluntary, non-profit, and non-governmental organisations deal with the responsibilities in forest management. They defend the interests of their members, including in social affairs. The issues of social care are, however, generally the responsibility of the respective ministry, equally for the entire territory of the country and in compliance with the legislation in force. It has to be mentioned that it is purely up to the decision of individual corporations how they focus they work and responsibilities, including social responsibility. Their activities or management are not regulated by the state at any respect and no measures are imposed on them by the state so as to increase any of their responsibilities, including social responsibility.

3. Contribution of timber and paper market development to the overall development of Czech economy.

The Market Statement 2009 already stated that the market with timber, and wood, pulp and paper products is currently on the fall in the Czech Republic in relation to its contribution to GDP. Namely, according to the Czech Statistical Office, the share of forestry and forest-based activities dropped in the gross value added from 0.87% in 2000 to 0.64% in 2010. This decline is due to a number of factors, such as lower competitiveness caused, inter alia, by the global crisis, insufficient innovation, etc. The impacts of the global crisis on Czech forestry itself were enormous. In figures, timber production reached 16,187 thousand m³ in 2008, which represents a drop by 12.5% against 2007. This was the third most significant setback in the EU after Germany and Sweden. A year later, in 2009, the Czech Republic noted another year-on-year drop by 4.2%. Austria was the only country, besides the Czech Republic, to note a decline in 2009. After three years of crisis, the Czech Republic was ranked as the worst in the EU with an overall fall of timber production by 16.2%. The Czech Republic suffered the most serious decline in round timber harvest as well. The year 2010 brought certain improvements, largely thanks to the increasing global sales. Nevertheless, the country has still not reached the pre-crisis volumes and will presumably neither achieve them in the following years. The sales of timber and roundwood reflect other problems. The average annual prices in export do not reach the average annual prices in import of softwood and hardwood timber together, and of softwood and hardwood roundwood together. Moreover, the problems of timber harvest have their impact on tendencies of year-on-year declines in industrial production in wood processing, furniture manufacture, and printing and graphic arts industry. The pulp and paper industry is neither capable of bearing up to the required increase.

The difficulties of forest production and mainly wood processing industry are more pronounced each year. Besides the lagging economic development in the EU, this is due to the permanently low

interest in wood products on the Czech market, both from the side of citizens and industry, mainly building industry. This lack of domestic interest to use wood and its products is reflected in its actual consumption. Wood, as an environmentally friendly material, enjoys a very limited use in the Czech Republic, incomparable to the founding member states of the EU or other developed countries in the world. It is rather being substituted by still demanded environmentally unfriendly “wet” products. The results of the development in the sectors related to forest production for 2009 were stated in the Market Statement 2009. In 2010, the index of industrial production did not note such a considerable setback as in 2009. Nonetheless, the growth of annual production in wood processing industry did not reach the values of the preceding years. Namely, as compared to the year 2009, the index of industrial production in current prices showed a year-on-year increase of 99.5% for processing of wood, wood products and cork, except furniture. The growth in furniture manufacture got to the value of 90.8%, and printing and graphic arts industry only reached 99% of the 2009 production.

The solutions to the development of these sectors of Czech economy are covered in part 1. The significance of the environmentally friendly timber and wood products will gradually grow if we manage to enhance the competitiveness of this material to the desired level. The EU has already been enforcing it and should not fail to address forestry and wood processing industry in this respect.

4. Wood and wood products market development in 2010.

a) Timber (total timber, roundwood, pulpwood and firewood).

aa) Timber market. In 2010, supplies from harvest of softwood and hardwood in the Czech Republic reached total 16,736 thousand m³. This represented an increase by 1,234 thousand m³ against 2009. Out of this, softwood timber amounted to 15,066 thousand m³ and hardwood timber 1,670 thousand m³. Softwood timber noted an increase in supplies on the market by 1,090 thousand m³ against 2009, while supplies of hardwood timber rose by 215 thousand m³. The year-on-year increase in these supplies was induced by the expected development of global economies, including the economy of the Czech Republic, after these substantially overcame the main problems of the global crisis. Thus, the year 2010 noted the first year-on-year increase in the indicators in the Czech Republic after the crisis. In the area of foreign trade, import of timber went up by 480 thousand m³ (+8.4%) as compared to 2009, and export declined by 891 thousand m³ (-32.6%).

ab) Market with roundwood, including pole and mining timber. Supplies from harvest of this timber products amounted to total 9,427 thousand m³ in 2010. The volume of marketed softwood roundwood was 8,982 thousand m³ and hardwood roundwood 445 thousand m³. Against the year 2009, these figures represent an increase in total roundwood by 575 thousand m³. Supplies of softwood roundwood rose by 650 thousand m³, which means that supplies of hardwood roundwood experienced a contrary development against 2009. This was caused by an excessive year-on-year increase in the harvest in 2009, and the year 2010 brought back the balance, which meant a decline in harvest by 75 thousand m³. Log breakdown noted a year-on-year decrease by 950 thousand m³ in 2009. As the sales of sawn timber went up again in 2010, that year brought higher volumes of log breakdown, namely 8,000 thousand m³, i.e. an increase by 1,300 thousand m³ against 2009. The decline in prices of roundwood to be processed at sawmills ceased in the course of 2010. While 1 m³ of roundwood cost CZK 1,857 in 2007, it was CZK 1,526 in 2008, and only 1,473 in 2009. The price of this material began to grow during 2010 and finally reached an average of CZK 1,819 for 1 m³. The price level of 2007 has not been reached yet, though.

ac) Market with pulpwood, including timber for wood pulp production. After the 2009 drop, the supplies of this material grew again in 2010. The total supplies of pulpwood, including timber for wood pulp production, reached 5,344 thousand m³ in 2010. Compared to 2009, the total

supplies of hardwood and softwood pulpwood in 2010 increased by 427 thousand m³, i.e. a year-on-year improvement by 8.7%. In softwood it was 4,747 thousand m³, which is 4.2% higher than in 2009 and, in absolute numbers, it represents a growth by 191 thousand m³. Supplies of hardwood pulpwood augmented considerably as opposed to 2009, namely by 236 thousand m³, in contrast to their decline by 34 thousand in 2009 against 2008. The year 2009 was characterised with higher demands for chemical pulpwood, which reflected in higher imports of softwood pulpwood. In figures, these imports were up to 7.6 times higher than in 2008. This boom ceased in 2010, though, and the imports increased only slightly, i.e. 1.1 times against 2009. While the imports of softwood pulpwood rose nearly 4 times in 2009 against 2008, in 2010, they were recorded to exceed merely 1.3 times the values of 2009.

ad) Fuel wood market. The total supplies of fuel wood reached the volumes of up to 1,880 thousand m³ in 2007 and 2008, if we count the wood coming from natural disasters. In 2009, these supplies were reduced by 147 thousand m³ and amounted to 1,733 thousand m³. Nevertheless, in 2010, they experienced another rise to reach 1,965 thousand m³. This figure comprises 1,337 thousand m³ of softwood and 628 thousand m³ of hardwood. The prices of fuel wood rose again in 2010, namely by 12% against 2009, which was due to rising energy prices.

b) Wood energy (Government incentives to increase wood energy production). The Government of the Czech Republic provides for an increase in electric energy production from biomass through Decree No. 482/2005 Coll. and Decree No. 5/2007 Coll. Both decrees relate to Act No. 180/2005 Coll. amended in 2010. Through these legal regulations, the country meets its obligations laid down by Directive 2009/28 EC. Under this directive, the country is committed to reach, in 2020, the target share of 13% of energy from renewable sources of electricity in its gross final consumption of energy.

The gross electricity production in the Czech Republic produced by hydraulic power plants, from biomass, total biogas, municipal solid waste, wind farms, photovoltaic systems, and liquid biofuels increased from 2,742,932 MWh in 2004 to estimated 5,887,017 MWh in 2010. The total production of this type of electricity increased in 2010 around 2.2 times against 2004. 1,511,911 MWh of **biomass electricity** was generated in 2010, which was 2.7 times more than in 2004. The share of this type of energy in the gross electricity consumption totalled 25.7% in 2010. Generation of **biogas electricity** reached 598,755 MWh in 2010 and thus rose 4.3 times against 2004. Its share in the gross production of electricity in 2010 exceeds 10%. In 2010, total 35,580 MWh of electricity was produced from **municipal solid waste**, compared to 10,031 MWh in 2004. This production was thus 3.6 times higher.

The gross production of thermal energy from biomass, biogas, biodegradable municipal solid waste, biodegradable industrial waste and alternative fuels, heat pumps, solar thermal systems, and liquid biofuels increased in the Czech Republic from 2004 to 2010 1.2 times. Thermal power plants generated 53,611,898 GJ of this type of energy in 2010. The production of **biomass** heat from the mentioned total thermal energy amounted to 46,920,000 GJ. This was 1.7 more than in 2004. Biomass heat constitutes 87.5% of all gross heat production. **Biogas** heat production also rose 1.7 times in 2010 against 2004 and totalled 1,600,000 GJ. **Biodegradable municipal solid waste** represented a decline by 13% and total 1,783,837 GJ of heat were generated. 2,000,000 GJ of heat were produced from **heat pumps** in 2010, which was a 400% rise against 2004. Other sources of heat represented negligible share in thermal energy production in 2010.

The consumption of heat in households generated by solar systems was estimated in 2010 to reach 250 TJ, as opposed to 96 TJ in 2004. Estimates of heat for households acquired from heat pumps for 2010 are 1,500 TJ, compared to 507 TJ consumed in 2004. Use of bioproducts for energy generation is still facing certain challenges. Certain imperfections in the legal system bring also some financial complications.

c) Forest products certification. The Czech Republic adopted certification as one of the instruments of sustainable forest management. The certification relates to such management practices and use of forests that secure their biodiversity conservation, production capacities, regeneration, vitality, and capacity to fulfil, at present and in the future, their economic, environmental, and social functions at all levels, and that cause no harm to the ecosystems. The Czech Republic applies two forest certification schemes, PEFC and FSC. In 2009, 1,824,118 ha of Czech forests were certified through PEFC and this number increased in 2010 to 1,856,381 ha. The FSC scheme was applied for 52,387 ha of forest both in 2009 and 2010. Forest certification appears to be one of the most efficient market mechanisms in the Czech Republic to support the principles of sustainable forest management. In practice, it implements one of the main tools of certification in the country. Forest owners holding the certificate document their commitment to manage their forests under the given criteria. These do not only regulate timber harvest, but also a comprehensive system of social, environmental, and economic functions of forests related to sustainable use natural resources. They help to protect and revitalise threatened and degraded forests. Certified timber is clearly distinguishable from timber of unknown origin by the use of a logo. Forest products certification assures the customers that their products come from forests managed through environmentally friendly practices. In the Czech Republic, there is a campaign to support the awareness concerning the respective brand and certification scheme. The customer is thus well-informed that the purchased product comes from legally harvested timber and from forests managed in an environmentally friendly way and with respect to the human and social rights of the inhabitants.

d) Value added wood products. The sector of wood processing involves processing of wood and wood products. Namely, it comprises Manufacture of Wood and Wood Products (NACE 16), Manufacture of Paper and Paper Products (NACE 17), Printing and Reproduction of Recorded Media (NACE 18), and Manufacture of Furniture (NACE 31). The sector of wood processing carried out activities amounting to total CZK 198,690,905 in 2010. This represented only an increment by 2.1% against 2009. Manufacture of wood noted a year-on-year increase by 7.4% and manufacture of paper and paper products by 14%, while printing declined by 14.2%, along with manufacture of furniture, which dropped by 9.6%. None of the manufacturers managed to reach the values of 2007. Compared to the 2007 figures, the decline was by 13.1% in manufacture of wood, by 10.1% in paper, by 28.6% in printing, and by 30.3% in furniture.

The value added per employee in three industrial areas of wood processing sector (apart from manufacture of paper) oscillates between CZK 350 thousand and CZK 380 thousand. In paper manufacture, this is nearly double. Precisely, the annual value added per employee in manufacture of wood in 2010 amounted to CZK 381,104 and exceeded the value of 2009 by 11.9%. In manufacture of paper, it was CZK 737,558, with an annual increment of 13.2%. The value added per employee in printing amounted to CZK 362,128, which, however, meant a drop in its dynamics by 20.9%. Manufacture of furniture reached the value of CZK 348,611 in 2010 and its annual increase was only 0.9%. The manufacturing industry as a whole recorded, in 2010, the value added per employee of CZK 612,892 and its year-on-year increase reached 11.1%. Considering the fact that it is rather complicated to achieve a higher value added in the sector of wood processing, i.e. to implement new production and manufacture more sophisticated products, we may state that the final figures of value added per employee in individual areas, related to the same indicator in the manufacturing industry as a whole, are actually more than satisfactory.

e) Softwood sawnwood market. The timber industry in the Czech Republic processes exclusively the domestic timber as raw material. Most of all, the processing involves softwood and hardwood roundwood, which significantly increased in 2010, compared to the preceding years of crisis of the sawnwood market. This improvement in the demand for sawnwood was most manifested

abroad, less on the domestic market. The timber industry, particularly sawmilling, is largely dependent on the country's export. This relates to such major sawmills as STORA ENSO TIMBER s.r.o. in Ždírec nad Doubravou, STORA ENSO TIMBER s.r.o. in Planá, Mayer-Melnhof Holz s.r.o. in Paskov, LESS-TIMBER s.r.o., and other. While sawmills in the Czech Republic processed 6,234 thousand m³ of softwood roundwood in 2009, this number was 8,110 thousand m³ in 2010. This documents a year-on-year increase by 1,876 thousand m³. The drop from the preceding year was balanced and even the numbers even grew. The mentioned volume of roundwood was used to finally manufacture 4,492 thousand m³ of softwood sawnwood, 18.2% more than in 2009. Exports of softwood sawnwood manufactured in the Czech Republic totalled 1,326 thousand m³, which means considerable 29.5% of all production. On the other side, imports represented 700 thousand m³ of softwood roundwood, i.e. 15.6% of all production. The volume of domestic consumption rose by 411 thousand m³ against 2009, i.e. by 25.4%. There was an increment in construction timber by 6.7% from 2006 to 2007. The following year, the growth was recorded by mere 0.6%, and the year-on-year figures of 2008-2009 were already 1% down. The year 2010 experienced a slight growth by 1.8%. The long-term trend depicts that the use of timber in construction is disproportionately low in the Czech Republic. For example, the annual consumption of timber per inhabitant is 150% higher in the USA than in our country. The situation in Japan is very similar, which shows how unbalanced it is in the Czech Republic, where timber is only sporadically used for house construction.

f) Hardwood sawnwood market. Only 553 thousand m³ of hardwood sawnwood were manufactured at Czech sawmills in 2010. This was even 7 thousand m³ less than in 2009. The proportion between the manufacture of softwood and hardwood roundwood is enormous in the country. This is, as mentioned before, due to the fact that Czech sawmills process exclusively timber from Czech forests, where the share of broadleaves has historically been low. The final volume of hardwood sawnwood amounted to 252 thousand m³ in 2010, an increase by 4 thousand m³, i.e. by 1.6% against 2009. With regard to the manufacture of hardwood roundwood in 2010 (252 thousand m³), the exports of this product rose sharply by 32.9%, amounting to 335 thousand m³. This despite the fact that the Czech Republic has its own capacities and possibilities to manufacture the product in the desired size and quality. Total 245 thousand m³ of hardwood sawnwood were exported in 2010, which is only 85.7% of the 2009 exports. The domestic consumption of the mentioned product was reduced compared to 2009 by 6.3% and reached 342 thousand m³.

g) Market with wood-based panels (particle board incl. OSB, fibreboard, plywood). In 2010, as opposed to 2009, the development on the market with wood-based panels, including OSB, was recorded as favourable in practically all aspects. The volume of production totalled 1,085 thousand m³, while the unfavourable year 2009 recorded 928 thousand m³ of production. Despite the year-on-year increase by 16.9%, the production did not reach the volumes of 2008, i.e. 351 thousand m³. Insufficient production created conditions for a certain increment in imports, but the real motive for higher imports of wood-based panels to the country were rather low prices than low production. The statistics document that the average import price of wood-based panels from the entire world fell by nearly 22% compared to 2009. In 2010, the Czech Republic thus imported 473 thousand m³ of this material, against 288 thousand m³ in 2009. The increase by 185 thousand m³ represented 64.2%. Export of wood-based panels also grew against 2009, namely by 23.3% against 2009 and 24.9% against 2008, amounting to 1,285 thousand m³. Regardless the insufficient sales on the domestic market and unfavourable prices for export, the domestic consumption of wood-based panels, including OSB, reached 273 thousand m³ in 2010, which is nearly 57% more than in 2009. The international trade with wood-based panels, particularly with OSB panels, represents the most profitable and most economical form of trade in any wood products.

Particle boards. The annual manufacture of particle boards oscillated around 80 thousand m³ in the pre-crisis period. Only 44 thousand m³ of these boards were produced in 2009 and there was only a slight increase by 2 thousand m³ in 2010, i.e. to 46 thousand m³. The increase in the manufacture of this product in the Czech Republic was not dramatic at all. The international trade does not show any considerable changes and the domestic consumption was even reduced in 2010. The vast majority of particle boards are long time imported on the Czech market. The international trade with this commodity showed the following results in 2010. Imports to the Czech Republic amounted to 205 thousand m³, which represents a reduction by 18 thousand m³ compared to 2009. Exports totalled 87 thousand m³, i.e. 5 thousand m³ more than in the preceding year. The domestic consumption of this product does not even equal the consumption of expensive hardwood and falls each year. In numbers, the Czech Republic consumed 164 thousand m³ of particle boards, compared to 185 thousand m³ in 2009.

Plywood. Manufacture of plywood in the Czech Republic dropped in 2008 against 2007. However, the trend has been positive since that time. The total production amounted to 175 thousand m³ in 2009 and 204 thousand m³ in 2010. The year-on-year increase is 16.6%. Plywood manufacture gradually grows to equal the production in neighbouring Austria, which shows stable annual productions of 213 thousand m³. The volume of 48 thousand m³ of plywood was imported to the Czech Republic in 2010, i.e. a drop by 22 thousand m³ against 2009. Exports also noted a considerable decline, namely by 105 thousand m³, totalling 36 thousand m³. The domestic consumption reached 216 thousand m³, compared to 104 thousand m³ in 2009.

h) Wood pulp and paper. The consumption of timber for the production of wood pulp was reduced in the past three years. It amounted to 3,341 thousand m³ in 2008, 3,325 thousand m³ in 2009, and 3,200 thousand m³ of softwood timber in 2010. The total material involved 1,980 thousand m³ of softwood pulp and 1,220 thousand m³ of softwood chips and particles. The pulp and paper industry in the Czech Republic manufactured, in 2010, total 722 thousand tons of wood pulp, against 732 thousand tons in 2009. This total volume comprised 718 thousand tons of wood pulp (728 thousand tons in 2009). This represented a slight increment manufacture of chemical pulp, namely by 4 thousand tons, while the manufacture of mechanical pulp dropped by approximately 14 thousand tons.

Manufacture of paper, paperboard, and cardboard, under CEPI classification, used in pulp and paper industry, was reduced against 2009 by 4.5% to reach 769 thousand tons (805 thousand tons in 2009). The exports amounted, however, to 786 thousand tons (758 thousand tons in 2009). The volume could be exported in 2010 thanks to higher imports, which totalled 1,288 thousand tons. The domestic consumption in 2010 reached 1,271 thousand tons, compared to 1,255 thousand tons in 2009. The total domestic manufacture involves approximately 79% of packing paper, 16% of graphic paper, and 5% of sanitary paper. This disproportionate ratio in the Czech pulp and paper industry does not reflect the actual Czech conditions. The country exports half of its wood pulp production and imports short fibre pulp, which it does not produce. In paper products, the Czech Republic exports commodities with a low value added and imports those with a high value added. Due to this disproportion, the country suffers considerable financial losses in the foreign trade balance. The solutions, however, still do not bring satisfactory results. Two companies play a decisive role in the pulp and paper industry. Biocel Paskov a.s. produces magnesium bisulphate pulp and Mondi Štětí, a.s. produces wood pulp, paper, and cardboard.

i) Trade with CO₂ footprint in the forest sector. This issue still lacks professional elaboration at the Ministry of Agriculture of the Czech Republic and the ministry has no office to address it. The trade with CO₂ footprint is the responsibility of the Ministry of the Environment of the Czech Republic. Hence, the Ministry of Agriculture cannot comment on this issue in this Report.

4. Tables

Selected economic indicators

Country: Czech Republic

| Indicator | Percentage change compared to previous year | | | |
|--|---|-------|------|------------|
| | Actual | | | Estimate |
| | 2008 | 2009 | 2010 | |
| Gross domestic product (2000 constant prices) | 2,5 | -4,1 | 2,3 | 1,9 až 2,1 |
| Industrial production (2000 constant prices) of which: | 0,5 | -15,0 | 11,1 | 12,7 |
| - woodworking industry | -2,5 | -10,9 | -0,5 | 0,3 |
| - pulp, paper and printing industry | -4,9 | -8,0 | 6,8 | 7,8 |
| Construction (2000 constant prices) | 0,6 | -1,0 | 1,8 | 2,1 |
| External trade (FOB/CIF, current prices) of which: | | | | |
| - Imports | 4,7 | -10,6 | 18,0 | 10,6 |
| - Exports | 6,0 | -10,8 | 18,0 | 12,2 |

Production (removals) of wood in the rough (1000 m³)

Country: Czech Republic

| Product | Year | Industrial roundwood | | | | Wood fuel | Total |
|-----------------------------|------|----------------------|------------------------|----------|-------|-----------|--------|
| | | Total | Sawlogs Veneer logs | Pulpwood | Other | | |
| Total | 2010 | 14 771 | 9 427 | 5 245 | 99 | 1 965 | 16 736 |
| | 2011 | 13 880 | 8 860 | 4 925 | 95 | 1 850 | 15 730 |
| | 2012 | 14 640 | 9 340 | 5 200 | 100 | 1 950 | 16 590 |
| | | | | | | | |
| | | | | | | | |
| of which: non-coniferous | 2010 | 1 042 | 445 | 577 | 20 | 628 | 1 670 |
| | 2011 | 985 | 420 | 545 | 20 | 600 | 1 585 |
| | 2012 | 1 050 | 450 | 580 | 20 | 640 | 1 690 |
| | | | | | | | |

Summary of statistics and estimates (1000 m³)

Country: Czech Republic

| Product | Year | Production | Imports | Exports | Apparent consumption |
|---|------|------------|---------|---------|----------------------|
| Sawnwood, coniferous | 2010 | 4 492 | 700 | 3 166 | 2 026 |
| | 2011 | 4 220 | 650 | 2 980 | 1 890 |
| | 2012 | 4 445 | 700 | 3 140 | 2 005 |
| Sawnwood, non-coniferous | 2010 | 252 | 335 | 245 | 342 |
| | 2011 | 240 | 320 | 235 | 325 |
| | 2012 | 255 | 340 | 250 | 345 |
| Sawlogs and veneer logs, coniferous | 2010 | 8 982 | 786 | 1 658 | 8 110 |
| | 2011 | 8 440 | 740 | 1 560 | 7 620 |
| | 2012 | 8 890 | 780 | 1 640 | 8 030 |
| Sawlogs and veneer logs, non-coniferous | 2010 | 445 | 193 | 85 | 553 |
| | 2011 | 420 | 182 | 80 | 522 |
| | 2012 | 450 | 195 | 86 | 559 |
| Pulpwood (round, split) coniferous | 2010 | 4 747 | 1100 | 2104 | 3 743 |
| | 2011 | 4 455 | 1032 | 1975 | 3 512 |
| | 2012 | 4 700 | 1090 | 2085 | 3 705 |
| Pulpwood (round,split) non-coniferous | 2010 | 597 | 21 | 94 | 524 |
| | 2011 | 565 | 20 | 90 | 495 |
| | 2012 | 600 | 21 | 95 | 526 |
| Veneer sheets | 2010 | 37 | 14 | 28 | 23 |
| | 2011 | 35 | 13 | 27 | 21 |
| | 2012 | 37 | 14 | 28 | 23 |
| Plywood | 2010 | 204 | 48 | 36 | 216 |
| | 2011 | 192 | 45 | 34 | 203 |
| | 2012 | 202 | 48 | 36 | 214 |
| Particle board | 2010 | 1 085 | 473 | 1 285 | 273 |
| | 2011 | 1 020 | 445 | 1 208 | 257 |
| | 2012 | 1 075 | 470 | 1 275 | 270 |
| Fibreboard | 2010 | 46 | 205 | 87 | 164 |
| | 2011 | 43 | 192 | 81 | 154 |
| | 2012 | 46 | 205 | 87 | 164 |
| Wood pulp * | 2010 | 718 | 178 | 386 | 510 |
| | 2011 | 675 | 167 | 365 | 477 |
| | 2012 | 710 | 177 | 385 | 502 |
| Paper and paperboard * | 2010 | 769 | 1 288 | 786 | 1 271 |
| | 2011 | 725 | 1 215 | 740 | 1 200 |
| | 2012 | 765 | 1 280 | 782 | 1 263 |

* 1000 ton

06/09/2011