

## Chapter 8

# *Pulp & paper markets cope with high energy prices and growth in Asia: Markets for paper, paperboard and woodpulp, 2005-2006<sup>40</sup>*

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### Highlights

- Pulp and paper markets in the UNECE region were influenced by higher energy prices and demand growth in Asia in 2005 and 2006.
- Important developments in Europe included the launching of the EU Emissions Trading Scheme, which was followed by substantial increases in electrical energy prices.
- High global energy prices pushed up costs of production and prices for pulp, paper and paperboard, with price increases absorbed by relatively strong global market demands.
- China continues to be a growing source of global demand for wood fibre, including recovered paper, which China imports in large volumes from the UNECE region.
- The European pulp and paper industry is deeply involved with the implementation of the Lisbon Agenda to improve the competitiveness of European industry, for instance, through the drafting of a Strategic Research Agenda.
- European producers of paper and paperboard set a new record for output, at 104 million m.t. in 2005, growing slowly by 0.4% from 2004.
- In 2005 in North America, output of paper and paperboard decreased by 1.5% to 101.1 million m.t. from 2004, although prices continued to increase in 2005 and the first half of 2006.
- In June of 2006, the International Council of Forest and Paper Associations announced the signing of an agreement by its global member companies on sustainability.
- Continued expressions of interest in sustainable forest management by forest and paper associations (and by customers of paper and paperboard products) suggest that related public procurement policies for paper and paperboard might become more common in the future.
- Production and consumption of pulp and paper declined in both the United States and Canada in 2005, but the production decline was much greater for Canada (-4.5%) than the United States (-0.8%).

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## Secretariat introduction

The UNECE/FAO Timber Section expresses its appreciation to Dr. Peter Ince,<sup>41</sup> Research Forester, USDA Forest Service, for once again leading the production of this chapter with his co-authors. Professor Eduard Akim, PhD,<sup>42</sup> The Saint Petersburg State Technological University of Plant Polymers and The All-Russian Research Institute of Pulp and Paper Industry analysed the Russian pulp and paper sector. Mr. Bernard Lombard,<sup>43</sup> Trade and Competitiveness Director, Confederation of European Paper Industries (CEPI), described trends in CEPI member countries in Europe. Mr. Tomás Parik<sup>44</sup>, Director, Wood and Paper, A.S., analysed developments in central and eastern Europe.

Mr. Eric Kilby, CEPI Statistics Manager, produced again this year the European data from CEPI member associations, which is the basis for the European analysis. Since there are some discrepancies between CEPI and UNECE/FAO definitions, the figures may vary slightly, but the trends remain the same. Thanks to these regular contributors, the *Review* has an overview of paper, paperboard and woodpulp market and policy developments across the UNECE region

## 8.1 Global trends

Global markets for pulp, paper and paperboard remained mostly firm in 2005 and in the first half of 2006, with limited expansion of production capacity in the UNECE region (and a slight decline of capacity in North America). Markets were characterized by generally higher prices (in US dollars) for most pulp, paper and paperboard products, continuing the general upward price trend observed since 2003. Higher prices and robust demand were stimulated by favourable global economic conditions, continued global expansion of industrial production, and continued growth in consumption of paper and paperboard in Europe and Asia (and China in particular). It can be noted, however, that 2006 prices for some commodities in Asia are lower

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than those in the UNECE region, such as those for newsprint in China, which were reportedly as much as 20% lower than in the United States, a phenomenon attributed to ongoing capacity expansion in China (PaperAge, 2006). Also, in the UNECE region in 2005, prices for some products appeared to occasionally waver, and subsequent price increases stemmed in part from higher global energy prices as higher energy costs were passed along from producers of pulp, paper and paperboard to consumers.

FIGURE 8.1.1

### Paper Production



Source: Stora Enso, 2006.

Within the UNECE region, effects of higher energy prices were readily apparent in regional trends for paper and paperboard. Higher global energy prices boosted exchange values of currencies for countries that exported large volumes of oil and gas, notably Canada and Russia, two countries that also produce large quantities of pulp, paper and paperboard. The higher exchange values of the Canadian dollar and Russian ruble (versus the euro and the US dollar) contributed to comparatively less robust market conditions for pulp, paper and paperboard producers in Canada and Russia. Canadian output of paper and paperboard declined in 2005, with a decline in the value of net exports, significantly lower capacity utilization rates, and lower profitability. The Russian trade balance in paper and paperboard (value of exports minus imports) also remained negative and continued to deteriorate in 2005, which was partly due to the effect on competitiveness of an increasing exchange value of the Russian ruble and high global oil prices.

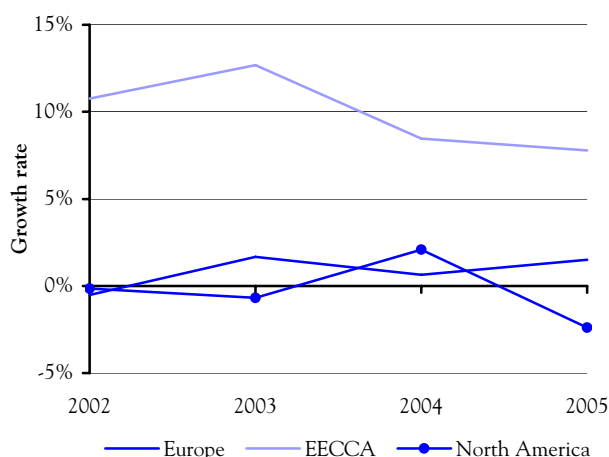
In 2005, rates of growth in apparent consumption of paper and paperboard increased slightly in Europe and decreased slightly in the Eastern Europe, Caucasus and Central Asia (EECCA) subregion<sup>45</sup>, while consumption

<sup>45</sup> The name "Eastern Europe, Caucasus and Central Asia" is a new UNECE term introduced this year in place of the Commonwealth of Independent States (CIS). It is comprised of the same 12 countries (see map in annex for list of countries).

declined again in North America (graph 8.1.1). In recent years, aggregate growth in paper and paperboard consumption has been relatively low but fairly steady in Europe, while apparent consumption in North America has varied, declining in 2003, increasing in 2004, and declining again in 2005. In both Europe and North America the growth trends for certain products are notably divergent from aggregate trends, with declining consumption of newsprint, for example, but increasing consumption of packaging paper and paperboard products. Meanwhile, apparent consumption of paper and paperboard continued to increase in Russia and the EECCA subregion, but at a slower rate of growth. Despite a slower growth rate relative to the previous year, the growth rate of consumption in the EECCA subregion in 2005 (including Russia) remained well above other UNECE regions.

GRAPH 8.1.1

Consumption growth rates for paper and paperboard in the UNECE region, 2002-2005

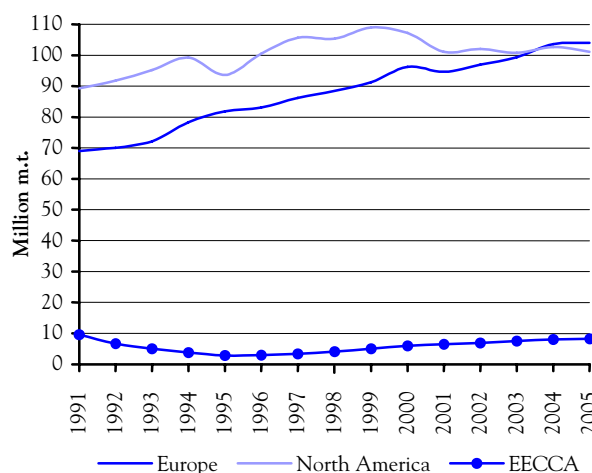


Source: UNECE/FAO TIMBER database, 2006.

For many decades until recently, North American paper and paperboard production exceeded European production. European production, however, has expanded more rapidly since 1990 while North American production peaked and levelled off after 1999. Consequently, European production reached equivalency in total tonnage with North American production several years ago (graph 8.1.2), and in 2005, European production exceeded North American production for a third consecutive year. Production dropped in the EECCA subregion during the early 1990s but has been steadily climbing since then.

GRAPH 8.1.2

Production of paper and paperboard in the UNECE region, 1991-2005

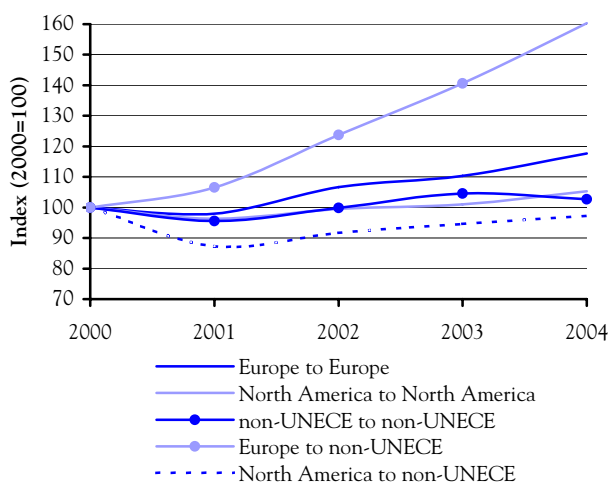


Source: UNECE/FAO TIMBER database, 2006.

Trends in major paper and paperboard trade flows of the UNECE region reveal that shipments from Europe to non-UNECE regions (mainly to Asia) have experienced the largest relative increase in recent years (graph 8.1.3).

GRAPH 8.1.3

Major paper and paperboard trade flows in the UNECE region, 2000-2004



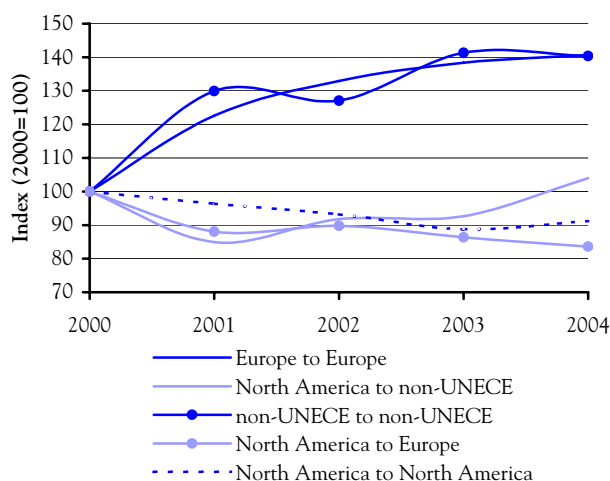
Note: Corresponding trade flow table in electronic annex.

Source: UN COMTRADE/EFI, 2006.

Other major trade flows have experienced adjustments that fall within a narrow band, and there was much less of an increase in trade flow from North America to non-UNECE regions, when compared to the increase for Europe to non-UNECE. The trends appear to indicate that Europe is participating much more than North America in meeting the growing demands of Asia for paper and paperboard products.

In the case of woodpulp trade flows, shipments from countries in Europe to other countries in Europe, and shipments from non-UNECE regions to other non-UNECE regions experienced the largest increases (graph 8.1.4).

GRAPH 8.1.4  
Major woodpulp trade flows in the UNECE region,  
2000-2004



**Note:** Corresponding trade flow table in electronic annex.

**Source:** UN COMTRADE/EFI, 2006.

A question being considered by the UNECE Timber Committee this year is how public procurement policies affect forest product markets, particularly those favouring procurement of recycled products or favouring procurement of products obtained from forests certified for sustainable forest management. Within the UNECE region, there have been government procurement policies related to recycled content in paper that have affected markets for paper products, although government purchases of paper products represent only a small fraction of the total market for most paper products. Many US states, for example, have paper procurement laws and regulations that require state agencies to purchase paper products with minimum recycled content (ranging from 30% to 50% or more), and the Federal Government has similar regulations. Such laws and regulations for the most part date back to the early 1990s, and thus markets have largely already absorbed their impact. Procurement policies related to certification for sustainable forest management are not common in the United States insofar as paper products are concerned. However, continued expressions of interest in sustainable forest management by forest and paper associations (and by customers of paper and paperboard products) suggest that related public procurement policies for paper and paperboard might become more common in the future.

In June 2006, the International Council of Forest and Paper Associations (ICFPA) signed an agreement on sustainability. Through this statement, ICFPA members made a commitment to sustainable development and to working with other stakeholders to ensure that environmental, social and economic benefits of natural resources are available to current and future generations. The global forest products industry committed to continuously improve its sustainability performance through action in the following core areas: promoting sustainable forest management worldwide, combating illegal logging, supporting and encouraging the recovery of pre- and post-consumer paper and wood products, ensuring respect for the environment, maintaining and improving the resources on which the industry depends, creating solutions to global climate change and energy supply objectives, and investing in workers and communities.

## 8.2 Europe subregion

### 8.2.1 Market developments

Despite higher energy prices and high currency exchange values in 2005, European producers of paper and paperboard set a new record, at 104.0 million m.t. in 2005, up from 103.6 million m.t. in 2004 (table 8.2.1). The Confederation of European Paper Industries (CEPI) reported also that paper and paperboard production in Europe reached a new record level during the first quarter of 2006. Production of paper and paperboard among CEPI member countries<sup>46</sup> during the first quarter of 2006 was the highest ever recorded in a single quarter: 2.4% higher than the first quarter of 2005 and 2.1% higher than the last quarter of 2005.

In terms of product sectors, European output increased in the first quarter of 2006 for graphic papers, packaging grades, and for sanitary and household paper products, while output declined for other paper and paperboard products. Among graphic paper products, newsprint production declined, but production of uncoated mechanical paper, uncoated woodfree paper, and coated woodfree paper all increased. Among the packaging grades, production of case materials, carton board, other paper and board for packaging, and wrapping paper all increased.

<sup>46</sup> CEPI member countries include: Austria, Belgium, the Czech Republic, Finland, France, Germany, Hungary, Italy, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, the Netherlands and the UK.

TABLE 8.2.1

**Pulp, paper and paperboard balance in Europe, 2004-2005**

(1,000 m.t.)

	2004	2005	Change %
<b>Woodpulp</b>			
Production	43 028	41 884	-2.7
Imports	18 894	19 250	1.9
Exports	11 740	11 598	-1.2
Net trade	-7 154	-7 652	...
Apparent consumption	50 182	49 537	-1.3
<b>of which: EU25</b>			
Production	39 500	38 542	-2.4
Imports	17 768	18 136	2.1
Exports	10 825	10 696	-1.2
Net trade	-6 944	-7 440	...
Apparent consumption	46 443	45 983	-1.0
<b>Paper and paperboard</b>			
Production	103 605	104 039	0.4
Imports	52 637	51 382	-2.4
Exports	65 343	63 158	-3.3
Net trade	12 706	11 776	-7.3
Apparent consumption	90 898	92 263	1.5
<b>of which: EU25</b>			
Production	96 363	96 775	0.4
Imports	48 477	46 909	-3.2
Exports	61 218	59 260	-3.2
Net trade	12 741	12 351	-3.1
Apparent consumption	83 622	84 424	1.0

Source: UNECE/FAO TIMBER database, 2006.

Although the paper industry in CEPI countries saw increased production (+0.3%) and consumption (+0.8%) of paper and paperboard during 2005 compared to the previous year, the results for the year were unquestionably distorted by the industrial dispute in Finland during the second quarter.

Production of paper and paperboard by CEPI countries increased by 0.3% in 2005 compared with the previous year to reach 99.3 million tons. With paper and paperboard production capacity standing at 109.9 million tons, the calculated operating rate (capacity utilization rate) for 2005 was therefore 90.4%.

Production of packaging grades outstripped that of graphics paper. The production of graphic grades in 2005 was adversely affected by an industrial dispute in Finland during May and June. Overall output of graphic grades among CEPI countries fell by 1.5%. Production of coated mechanicals showed the only increase in the graphics

sector at 1.0%. For the packaging sector, production increased by 1.9%. Most of this increase was in case material grades, where production rose by 3.8%. The output of carton board and wrappings slightly decreased. Hygienic paper manufacturers increased their output by 3.9%. Production of industrial and speciality grades rose by 1.7%.

Output of pulp fell by 2.6%, in part due to the drop in Finnish production and in part due to the strong euro, which made imports financially attractive. Total output of both integrated and market pulp reached 41.6 million tons. Market pulp production for 2005 decreased 0.4% over 2004. Pulp production capacity increased to 47.3 million tons.

Overall consumption of paper and paperboard in CEPI member countries in 2005 rose by 0.8% compared to 2004. Consumption totalled 88.2 million tons. This increase in consumption is below the 1.5% growth in GDP (Eurostat – EU15, 2006). Overall consumption of graphic grades increased 0.5%. Deliveries within CEPI increased 0.3% whereas imports from outside CEPI countries rose by 3.6% and exports fell by 8.5%. Exports represented over 17.7% of deliveries in graphic grades.

Overall demand for packaging grades increased by 1.4% compared to the 2004 total. Imports from outside CEPI rose by 4% and exports by 0.9%. Internal deliveries within CEPI countries increased by 1.3%. Exports represent 13.5% of deliveries of all packaging materials and imports represent 5.4% of demand.

Demand for sanitary and household grades grew by 1.6%. Internal deliveries rose by 1.3%. Imports from outside CEPI countries increased 15.8% and exports increased by 16.2%. Internal deliveries account for 97.7% of apparent consumption in CEPI countries.

Overall consumption of pulp fell by 0.7%. Consumption of mechanical and semi-chemical pulp decreased by 2.4% while consumption of chemical pulp increased by 0.2%.

Paper deliveries by CEPI countries fell by 4.5% compared to 2004. Exports to non-CEPI countries accounted for 14.9% of total deliveries by CEPI countries but declined by 4.5%, reaching 14.8 million tons. Shipments to Asian markets accounted for 30% of exports but fell by 13.6%. Exports to non-CEPI Europe rose by 6.9% whereas deliveries to North America fell by 11.9%.

Imports into the CEPI countries contributed 4.8% of total European paper consumption in 2005 and increased by 3.9%, again due in part to favourable exchange rates and a higher demand. Imports from North America increased by 14.7% and imports from the rest of Europe rose by 3.6%. Imports from Latin America continue to rise. Producers such as Aruaco (Chile) and Aracruz

(Brazil) are growing fast and aggressively (PaperAge, March/April 2006). However, CEPI countries had an overall positive trade balance in paper of 10.5 million tons in 2005.

Utilisation of recovered paper increases by 2.6% over 2004 at 47.3 million tons. Collection increased by 6.0%. Exports of recovered paper to countries outside CEPI reached 7.4 million tons with 94.9% of this being sent to Asian markets. Woodpulp and recovered paper represent both 42% of the fibre used in papermaking in CEPI countries. The European paper industry nearly met its ambitious target to push the paper recycling rate above 56% in 2005. The actual paper recycling rate stood at 55.4%. An extra 9 million tons were recycled compared to 1998, but this does not take into account the volumes of recovered paper exported for recycling. A new target will be launched in the coming months to reach even higher rate in 2010.

### 8.2.2 Policy developments

In the area of policy development, the European Commission clearly stated its goal of building a sustainable and competitive future for Europe in accordance with the *Lisbon Agenda, 2000* and the *Growth and Jobs Strategy, 2005* in partnership with the EU Member States. The European Commission is looking to industry to support this objective and contribute to the Better Regulation initiative, which aims to simplify legislation and better assess its impact on businesses. Sustained efforts in the areas of environmental protection and R&D are required. The European Commission launched a new industrial policy to create better framework conditions for manufacturing industries, and at the end of 2005 created a High Level Group on Competitiveness, Energy and the Environment, in which CEPI and the European pulp and paper industry are deeply involved.

On 15 February 2005, the European forest-based sector launched Vision 2030 as part of its Technology Platform initiative. The aim is to drive the industry toward the continued sustainable development and innovation needed to nurture growth in the sector over the next 25 years. The Forest-Based Sector Technology Platform (FTP) represents a bold step forward. For the first time, all major European stakeholders have joined forces to establish a vision for the future. With clear strategic objectives, the stakeholders have taken on the task of defining a Strategic Research Agenda (SRA) and ensuring its implementation. Stakeholders from all areas including industry, forest owners, researchers and public bodies have taken an active part in this process, with the European Commission observers.

In 2005, the European paper industry continued to face challenges from many corners, most notably the

significant increase in energy prices. Rising logistics costs were another significant contributor.

The introduction of the Emissions Trading Directive in January 2005 was intended to bring a new incentive for industry to reduce the consumption of fossil fuels. It certainly caused anxiety that power prices in Europe would increase as a result of the new system. The expected increase materialized and was dramatic, placing the European paper industry at a competitive disadvantage in relation to most of its global competitors. However, some adjustments to the carbon emissions quotas allotted to the countries and specific industries are expected to better match the latest developments.

The new EU Renewable Energy Policy in 2005 is a source of concern for the European pulp and paper industry. CEPI believes the policy and countries' subsidies to the wood energy sector create unfair competition for the paper industry's main raw material, and are concerned about fibre availability at affordable prices. CEPI is responding through a Renewable Energy Sources Working Group, which provided their input to the EU Biomass Action Plan in 2005.

FIGURE 8.2.1

#### Paper Production



Source: Stora Enso, 2006.

One of the biggest recent changes in legislation affecting production is the new chemicals policy, REACH (Registration, Evaluation, Authorisation of Chemicals), which has been developed with the main objective of ensuring safe use of man-made products from the chemical industry. While in general the impact of REACH on industry will undoubtedly be considerable, the paper industry's main raw materials – cellulose pulp and recovered paper – are now exempt from registration and excluded from the current proposal.

Stepping up its fight against illegal logging, the European paper industry launched its own new code of

conduct at the Ministerial Conference on the same topic in St. Petersburg, Russia. The code strongly condemns the illegal logging of wood and trading in illicit logs. It sets out several principles for paper companies to adhere to in a coordinated effort to ensure that industry plays a full role in helping to combat illegal logging. This corresponds to the EU's Forest Law Enforcement, Governance and Trade for private sector initiatives. Reporting on implementation and compliance is expected at both national and European levels.

The economies of other countries in central Europe have continued to experience significant positive development, as many industries are finding new opportunities for investments in these countries. New members of EU are also experiencing significant growth in many areas, including pulp and paper production and consumption. Positive economic development is attracting capital and having some influence on exchange rates of currencies in the region. The strengthening of currencies in general is putting further pressure on productivity, and influencing profitability of the industry in general.

Consumption of paper products has been increasing steadily in central Europe. Growth was not as strong in 2005 as in previous years but still significantly high with good potential, while per capita consumption in this region is lower than in some other regions. Two main policy and economic development areas can be identified as having the most significant influence on development in central Europe.

One area of concern is infrastructure and transport policy, which have a big influence on market conditions. Strong needs for infrastructure development is one of the key issues in all of the new and candidate EU countries, and one of the first conditions for further development in all areas. General public pressure on safer transportation, oil prices, environmental concerns are main driving forces influencing competitiveness of the industry in the region. A good logistics infrastructure and a reliable and affordable energy supply are crucial to the pulp and paper industry.

The environment is the second area of policies that has significant influence on pulp and paper industries. Most production sites already implement high standards of environmental protection policies including environmental certification. More effort should be focused in general on public perceptions of the pulp and paper industry, where its sustainable profile must be better promoted in order to increase general competitiveness of pulp and paper industry. Many wood consumers in central Europe are demanding wood from forest management certified forests. In addition, questions of illegal logging are now taken seriously, and various efforts following the general European development are ongoing.

Central Europe can be seen as having interesting potential in consumption. There are some new projects for production expansion foreseen in the subregion. Some big challenges to be tackled in order to secure sustainability of pulp and paper industry in the subregion – mainly related to raw material availability, especially with increased wood energy production.

### 8.3 EECCA subregion

In 2005 and the first half of 2006, the subregion of the EECCA continued to experience robust economic growth, reflected by continued but slower growth in Russian pulp and paper output (table 8.3.1). The growth in Russia's paper and paperboard output was 2.8% in 2005 (versus 7.1% in 2004), including a 4.2% increase in output of paperboard.

TABLE 8.3.1

**Pulp, paper and paperboard balance in EECCA, 2004-2005**  
(1,000 m.t.)

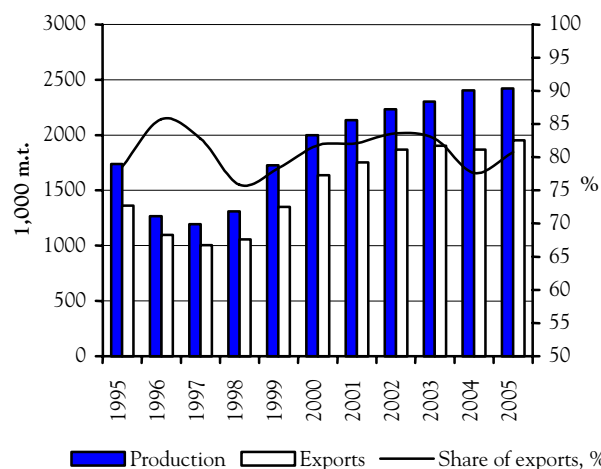
	2004	2005	Change %
<b>Woodpulp</b>			
Production	7 059	7 099	0.6
Imports	160	159	-0.4
Exports	1 868	1 951	4.5
Net trade	1 708	1 792	4.9
Apparent consumption	5 351	5 306	-0.8
<b>Paper and paperboard</b>			
Production	8 043	8 274	2.9
Imports	1 880	2 223	18.2
Exports	2 959	2 992	1.1
Net trade	1 079	768	-28.8
Apparent consumption	6 964	7 506	7.8

Source: UNECE/FAO TIMBER database, 2006.

Both demand and output of pulp and paper products increased in Russia through 2005 and into the first half of 2006. Owing to relative economic and political stability established in the country since the major currency revaluation of 1998 and more expansionary macroeconomic policy under President Putin since 1999, there has been a continuous increase in total output of pulp, paper and paperboard in Russia, more than doubling since 1996, although output has yet to reach previous record levels of 1988-1989 pre-transition periods in the late Soviet era (graphs 8.3.1 and 8.3.2).

GRAPH 8.3.1

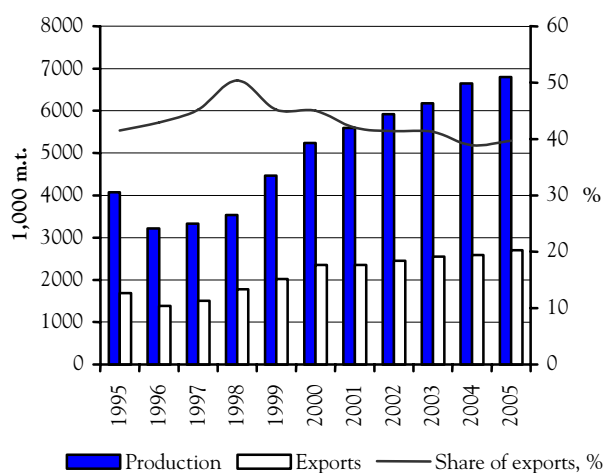
## Russian production and exports of market pulp, 1995-2005



Sources: Goscomstat of the Russian Federation, PPB-Express (Moscow) and author's data interpretation, 2006.

GRAPH 8.3.2

## Russian production and exports of paper and paperboard, 1995-2005



Sources: Goscomstat of the Russian Federation, PPB-Express (Moscow) and author's data interpretation, 2006.

In 2005, the Russian pulp and paper sector continued to expand production of pulp, paper and paperboard, particularly the output of paperboard for packaging. During 2005, Russia's total output of pulp (both pulp for paper and paperboard and market pulp) increased by 0.2% and the output of market pulp increased by 0.4%.

Exports of pulp and paper products hold a dominant position in the total Russian exports of forest-based products, but the overall structure of forest product exports still has a pronounced raw material character. In terms of roundwood equivalents, roundwood timber exports and sawn wood exports accounted for 79% of

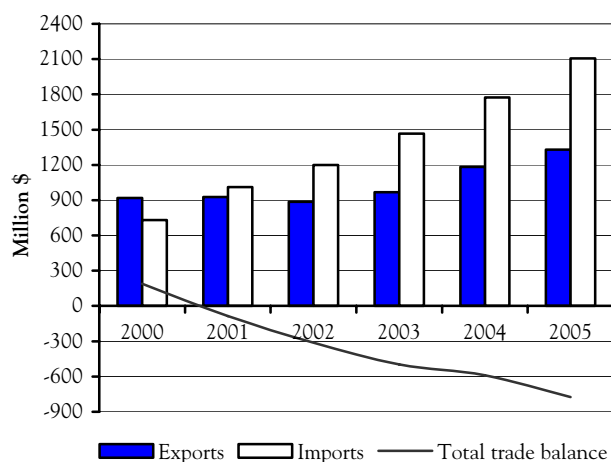
Russia's exports in 2003, while pulp and paper accounted for only 21% of exports.

In 2005, exports of pulp and paper products continued to increase. Exports of pulp, paper and paperboard were progressively increasing since 1990 and reached a peak level in 2005. However, Russian exports as a percentage of production have remained largely unchanged since 1996, with exports comprising about 80% of output for market pulp, and around 40% for paper and paperboard. Major export destinations for these Russian products are China (market pulp, kraft linerboard), Ireland (market pulp, kraft linerboard), India (newsprint), and Turkey (newsprint).

Although the tonnage of Russian paper and paperboard exports greatly exceeds the tonnage of imports, the trade balance in value has continued to deteriorate, as Russia has expanded imports of higher value paper products. The annual trade deficit in paper and paperboard has been negative since 2001, and in 2005 it was more than \$870 million (graph 8.3.3).

GRAPH 8.3.3

## Russian exports and imports of paper and paperboard, 2000-2005



Sources: State Customs Committee, *Pulp. Paper. Board Magazine*, PPB-express, PPB Exports, PPB Imports and author's data interpretation, 2006.

The higher value of imports of paper and paperboard compared to their exports is mainly due to the fact that Russia is importing expensive products such as high quality materials for container and packaging, coated paper, and tissue, whereas less expensive commodity products such as newsprint and kraft linerboard are being exported.

Reconstruction and restructuring of the Russian pulp and paper industry is continuing, with some progress being made towards higher value products with better processing of wood raw material.



It can be noted that future development of Russia's pulp and paper sector is linked to expanded production of more technologically advanced products (such as coated printing and writing paper rather than newsprint for example), and also more integrated utilization of forest resources.

Implementation of important environmental projects provides examples of steps being taken towards applying the new Russian environmental laws adopted in late 2002 (based on comparison of environmental indices of individual mills and those of "best available technology", or BAT). Furthermore, in connection with ratification of the Kyoto Protocol, a number of mills initiated work on inventorying of greenhouse gas emissions. Such accounting for carbon and greenhouse gas emissions is being done to prepare for limits on emissions and perhaps trading in carbon emissions.

"Forest wars" (a journalistic term for legal disputes among managers and owners of forest enterprises) went on in 2004-2005. In past years such disputes involved occupation of plants by armed guards (hence the term "forest wars"), but more civil and legal proceedings now characterize the settlement of such disputes.

## 8.4 North America subregion

In North America, output of paper and paperboard decreased by 1.5% in 2005 to 101.1 million m.t., while apparent consumption of paper and paperboard decreased by 2.4% to 96.4 million m.t. (table 8.4.1). Production and consumption declined in both the United States and Canada, but the decline was more pronounced for Canada. Producers in both countries experienced higher energy prices, but Canadian producers also had to cope with a much stronger Canadian dollar, which has impacted competitiveness of Canadian producers in global markets.

Looking at monthly data it is apparent that growth in US paper and paperboard purchases has continued to follow a secular upward trend in line with the recovery of US industrial output since 2002 (graph 8.4.1). There was a steady increase since 2002 in the monthly US industrial production index along with monthly year-to-date totals of US paper and paperboard purchases. The year-to-date purchases show some cyclical variability since 2002, but the long-term trend in purchases has continued to spiral upward along with the upward trend in industrial production.

TABLE 8.4.1

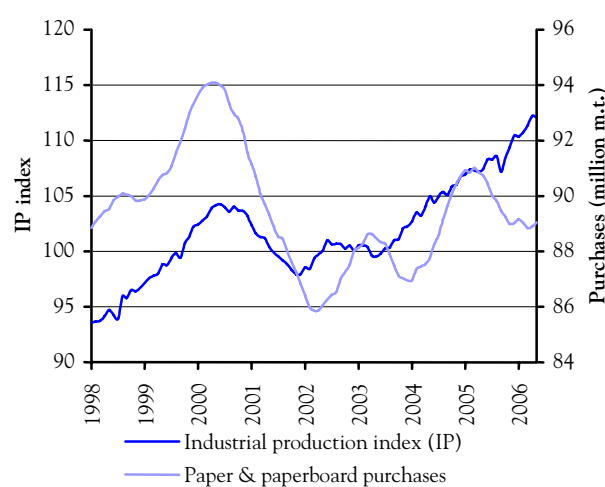
**Pulp, paper and paperboard balance in North America, 2004-2005**  
(1,000 m.t.)

	2004	2005	Change %
<b>Woodpulp</b>			
Production	80 895	79 889	-1.2
Imports	6 388	6 452	1.0
Exports	17 141	16 439	-4.1
Net trade	10 753	9 987	-7.1
Apparent consumption	70 142	69 902	-0.3
<b>Paper and paperboard</b>			
Production	102 683	101 110	-1.5
Imports	21 222	20 621	-2.8
Exports	25 155	25 341	0.7
Net trade	3 933	4 720	20.0
Apparent consumption	98 751	96 390	-2.4

Source: UNECE/FAO TIMBER database, 2006.

GRAPH 8.4.1

**US industrial production index and year-to-date purchases of paper and paperboard, 1998-2006**



Notes: Monthly data. Purchases on a year-to-date annual basis.

Sources: US Federal Reserve and American Forest & Paper Association, 2006.

The upward trends since 2002 directly coincide with a period during which the trade-weighted exchange value of the US dollar declined from its recent historical peak (in early 2002) to the vicinity of its long-term historical average (where the dollar value was hovering in 2005 and in the first half of 2006). The decline in dollar value to its long-term average value has boosted competitiveness for US manufacturers, and coincides with increased industrial output and a secular upward trend in purchases of paper and paperboard since 2002. By May 2006, year-to-date US purchases of paper and paperboard stood at about 4% above their recent historical low point (in mid-

2002), but purchases still remained about 5% below their historical peak (of 1999). Although overall US industrial production has more than fully recovered from the recession of 2001-2002, US paper and paperboard production has yet to fully recover. In fact, the question is, "Will paper production ever recover its previous strong correlation with industrial production, or is it in secular decline?"

FIGURE 8.2.1

## Paper reeling



Source: Stora Enso, 2006.

Cyclicality in domestic paper and paperboard purchases and mill operating rates, along with variability in currency exchange rates, have contributed to some variability in US pulp, paper and paperboard prices, but secular trends in prices have been generally upward (in US dollars) since around 2002-2003. The secular upturn in purchases and prices in recent years along with depreciation in exchange value of the US dollar generally boosted profits for the US pulp and paper industry from 2002 to 2005. However, industry profits began to decline toward the end of 2005 and into 2006, despite relatively high prices for pulp, paper and paperboard commodities. The weakness in profits appears to stem in part from higher energy costs. Higher energy costs have also been cited as a reason for higher pulp, paper and paperboard commodity prices.

Canada experienced a decline in pulp, paper and paperboard output in 2005 as the value of the Canadian dollar rose in tandem with higher crude oil prices in recent years. Canada is the leading source of US crude oil imports. From 2002 to 2006, global crude oil prices more than doubled and the Canadian dollar appreciated in that period by more than 40% in value relative to the US dollar. Since early 2004, the Canadian dollar also appreciated by nearly 20% relative to the euro. Rising energy prices negatively impacted profits and growth for both the Canadian and US pulp and paper industries, but

the strong Canadian dollar contributed to weaker market conditions for Canada than the United States in recent years.

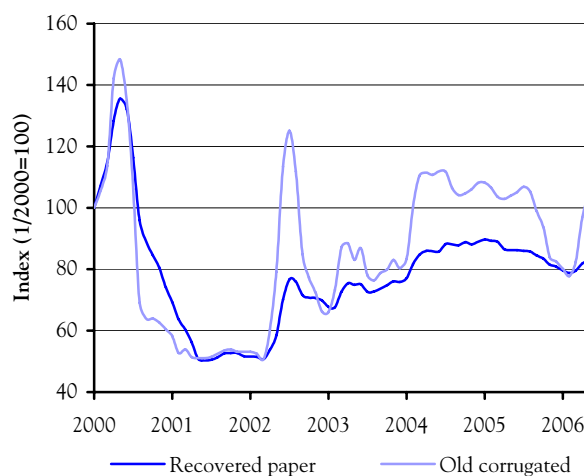
For example, at the end of 2004 Canada's annual production of paper and paperboard increased by just 2.4% over the previous year, compared with an increase of 1.7% in US paper and paperboard production. By the end of 2005, Canada's annual production of paper and paperboard dropped by 4.5%, compared to a more modest decline of just 0.8% for the United States.

Divergent market conditions for Canada and the United States were reflected also in a divergence of capital spending trends. According to a recent survey by *Pulp & Paper Week* (2006), the US pulp and paper industry is expected to increase capital spending by 5% in 2006 to the highest level in five years, while capital spending by the Canadian pulp and paper industry is expected to drop by 7%. However, even in the United States, capital spending levels remain well below the historical peak levels of the 1990s, and many firms continue to maintain capital spending at levels well below depreciation and amortization.

Prices for some fibre inputs have continued to show signs of recovery in North America since 2002, particularly recovered paper prices that are driven in part by booming exports of recovered paper to China. For example, the nationwide average US price indexes for recovered paper in general and for old corrugated containers in particular remained elevated in 2005 and 2006 (graph 8.4.2).

GRAPH 8.4.2

US monthly price indexes for recovered paper (all categories) and for old corrugated containers, 2000-2006



Source: US Department of Labor, Bureau of Labor Statistics, Producer Price Indexes, 2006.

Recent increases in recovered paper prices reflect substantial increases in export demand for recovered paper, particularly demand from China. The United States exported a total of 14.5 million m.t. of recovered paper in 2005, 7.5 million m.t. of which was imported by China. Total Chinese imports of recovered paper reached nearly 17 million m.t. in 2005, up by nearly 40% in just one year (according to Bureau of International Recycling (BIR, 2006). During the first quarter of 2006, at least 75% of China's recovered paper imports were obtained from the UNECE region (48% from the United States and 27% from Europe, according to BIR).

## 8.5 References

- American Forest & Paper Association (AF&PA). 2005. 2005 Annual Statistical Summary - Recovered Paper Utilization. AF&PA, Washington DC. 92 p. Available at: [www.afandpa.org/Template.cfm?Section=Browse\\_by\\_Category&Template=/Ecommerce/ProductDisplay.cfm&ProductID=106](http://www.afandpa.org/Template.cfm?Section=Browse_by_Category&Template=/Ecommerce/ProductDisplay.cfm&ProductID=106)
- American Forest & Paper Association (AF&PA). 2006. Paper, Paperboard & Wood Pulp, Monthly Statistical Summary. Volume 84, No. 6. June 2006, and other issues. Available at: [www.afandpa.org/Template.cfm?Section=Browse\\_by\\_Category&Template=/Ecommerce/ProductDisplay.cfm&ProductID=87](http://www.afandpa.org/Template.cfm?Section=Browse_by_Category&Template=/Ecommerce/ProductDisplay.cfm&ProductID=87)
- Confederation of European Paper Industries (CEPI). 2006. Available at: [www.cepi.org](http://www.cepi.org)
- Pulp & Paper Week. RISI, Vol. 28, No. 20 (and other issues). 2006. Available at: [www.risiinfo.com/risi-store/do/product/detail?id=8625&pclId=21&parentId=&rootId=12](http://www.risiinfo.com/risi-store/do/product/detail?id=8625&pclId=21&parentId=&rootId=12)
- Pulp & Paper Products Council of Canada. 2005. Canadian Pulp and Paper Industry Key Statistics. Available at: [www.pppc.org/en/1\\_0/index.html](http://www.pppc.org/en/1_0/index.html)
- Stora Enso. 2006. Available at: [www.storaenso.com](http://www.storaenso.com)
- The Paper Stock Report. McEntee Media Corp. Vol. 17, No. 7. (June 10, 2006). Available via: [www.recycle.cc/psrpage.htm](http://www.recycle.cc/psrpage.htm)

Additional statistical tables for this chapter may be found in the electronic annex on the UNECE Timber Committee and FAO European Forestry Commission website at: [www.unece.org/trade/timber/mis/fpama.htm](http://www.unece.org/trade/timber/mis/fpama.htm)

Tables for this chapter include:

- Chemical woodpulp apparent consumption, 2001-2005
- Paper and paperboard apparent consumption, 2001-2005
- Graphic papers apparent consumption, 2001-2005
- Sanitary and household papers apparent consumption, 2001-2005
- Packaging materials apparent consumption, 2001-2005
- Production of chemical woodpulp, 2001-2005
- Exports and imports of chemical woodpulp (volume), 2001-2005
- Chemical woodpulp balance in UNECE, 2001-2005
- Exports and imports of chemical woodpulp (value), 2001-2005
- Production of mechanical woodpulp, 2001-2005
- Exports and imports of mechanical woodpulp (volume), 2001-2005
- Mechanical woodpulp balance in UNECE, 2001-2005
- Exports and imports of mechanical woodpulp (value), 2001-2005
- Production of graphic paper, 2001-2005
- Exports and imports of graphic paper (volume), 2001-2005
- Graphic paper balance in UNECE, 2001-2005
- Exports and imports of graphic paper (value), 2001-2005
- Production of packaging paper, 2001-2005
- Exports and imports of packaging paper (volume), 2001-2005
- Packaging paper balance in UNECE, 2001-2005
- Exports and imports of packaging paper (value), 2001-2005
- Wood pulp balance in UNECE, 2001-2005
- Paper and paperboard balance in UNECE, 2001-2005
- Major paper trade flows in the UNECE region 2003-2004
- Major woodpulp trade flows in UNECE region 2003-2004

Full statistics used in the *Forest Products Annual Market Review, 2005-2006* may be found in the UNECE/FAO TIMBER database at:

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FOREST PRODUCTS ANNUAL MARKET REVIEW

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