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Food and Agriculture  
Organization  
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# Forest Products

## Annual Market Review



Innovation for structural  
change recovery



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## Geneva Timber and Forest Study Paper 25

# FOREST PRODUCTS ANNUAL MARKET REVIEW 2009-2010

*Project Manager*

**Ed Pepke**



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## NOTE

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## ABSTRACT

The UNECE/FAO *Forest Products Annual Market Review, 2009-2010* provides general and statistical information on forest products markets and related policies in the UN Economic Commission for Europe region (Europe, North America and the Commonwealth of Independent States). The *Review* begins with an overview chapter, followed by description of the macro-economic situation. Next it includes an analysis of government and industry policies affecting forest products markets. Five chapters are based on annual country-supplied statistics, describing: wood raw materials, sawn softwood, sawn hardwood, wood-based panels, and paper, paperboard and woodpulp. Additional chapters discuss markets for wood energy, certified forest products, value-added wood products, forest carbon and tropical timber. In each chapter, production, trade and consumption are analysed and relevant material on specific markets is included. Tables and graphs provided throughout the text present summary information. Supplementary statistical tables may be found on the Market Information Service website within the UNECE Timber Committee and FAO European Forestry Commission website at [www.unece.org/timber](http://www.unece.org/timber).

## KEYWORDS

Forest products markets, wood markets, market analysis, forest policy, consumption, production, imports, exports, forestry industry, forestry trade, forestry statistics, Europe, North America, Commonwealth of Independent States, climate change, housing market, construction, timber, wood industry, pulp and paper industry, wood fuels, certification, wood products, tropical timber, forestry trade, sustainable forestry, sawnwood, sawn softwood, sawn hardwood, lumber, wood-based panels, particle board, particleboard, fiberboard, fibreboard, OSB, MDF, plywood, paperboard, cardboard, woodpulp, pulpwood, sawlogs, pulplogs, roundwood, industrial roundwood, wood energy, bioenergy, biomass, fuelwood, certified forest products, furniture, builders joinery, carpentry, wood profiles, engineered wood products, EWP, REDD and carbon.

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## Chapter 8

# Rebound from steep drop in demand amid simmering global trade issues: Markets for paper, paperboard and woodpulp, 2009-2010<sup>46</sup>

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### Highlights

- Paper and paperboard consumption declined sharply in 2009 by 9% in Europe and 10% in the United States relative to 2008; just a fraction of that decline was recovered by early 2010.
- Pulp and paper commodity prices fell in 2009, dropping well below 2008 price levels, but prices began to stabilize by mid-year, and in some cases fully recovered by early 2010.
- A wave of capacity withdrawals in the form of mill downtime and shutdowns helped stabilize the market balance between product supply and demand.
- Pulp prices were boosted also by shutdowns of Chilean pulp capacity due to the devastating earthquake in February 2010, and by expanding woodpulp demand in Asia, particularly in China.
- Global market trends point to a secular shift of growth in paper and paperboard output to Asia, while production has levelled out and declined in Europe and North America.
- Global trade issues were simmering in 2010: the European Union launched anti-dumping and anti-subsidy probes in 2010 concerning coated paper imports from China; the US imposed preliminary countervailing duties on coated paper imports from China and Indonesia.
- In 2009, Russian Federation exports of market pulp and packaging paper products to China declined as China's export demand shrank with the global economic crisis.
- In central and eastern Europe, reduced production due to the downturn in demand from the global economic crisis in early 2009, with production returning to normal levels later in the year.
- Central and eastern Europe increasingly is becoming incorporated into EU procedures and policies and therefore developments, e.g. costs are similar to the rest of Europe.
- Green energy production subsidies are a serious threat for the pulp and paper industry in Europe due to strong competition for raw materials.

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<sup>46</sup> By Dr. Peter J. Ince, USDA Forest Service; US; Prof. Eduard L. Akim, PhD, Saint Petersburg State Technological University of Plant Polymers, Russian Federation; Mr. Bernard Lombard, Confederation of European Paper Industries, Belgium; and Tomas Parik, Wood and Paper, A.S., Czech Republic.

## Secretariat introduction

Regular readers of the *UNECE/FAO Forest Products Annual Market Review* will realize that the four authors continue to bring forth the key market and policy developments in paper and pulp markets for their respective subregions. The secretariat is thankful for the continued collaboration with the same authors as in the previous few years. These regular contributors to the *Review* provide an overview of paper, paperboard and woodpulp market and policy developments across the UNECE region and its trading partners.

Dr. Peter Ince,<sup>47</sup> Research Forester, USDA Forest Service, analysed the developments in North America. During his tenure at the Forest Products Laboratory, he has gained recognition for his expertise in this field. He deserves special thanks for coordinating the input from his co-authors.

In alphabetical order, we extend our gratitude to the other analysts, beginning with Professor Eduard Akim, PhD,<sup>48</sup> of the St. Petersburg State Technological University of Plant Polymers and the All-Russian Research Institute of Pulp and Paper Industry. Professor Akim drew his analysis from his preparations for the FAO Advisory Council on Paper and Wood Products. Professor Akim is the Deputy Leader of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing. He is an expert on the Russian pulp and paper sector.

Mr. Bernard Lombard,<sup>49</sup> Trade and Competitiveness Director, Confederation of European Paper Industries (CEPI), is well placed to analyse trends in western Europe. The European analysis was aided by Mr. Eric Kilby, Statistics Manager, and Ms. Ariane Crevecoeur, Statistics Assistant, both from CEPI. Collaboration with trade associations such as CEPI not only helps with the analysis, but it also helps validate the database for pulp and paper markets. Readers should note that CEPI has a different European subregion than the UNECE. Therefore the authors are careful, when discussing Europe, to indicate

whether it is CEPI's 19 countries<sup>50</sup>, the EU-27 or the UNECE European subregion of 41 countries. Due to small discrepancies between CEPI and UNECE/FAO definitions, figures may vary slightly, but the trends remain the same.

Mr. Tomáš Parik,<sup>51</sup> Director, Wood and Paper, A.S., highlighted developments in central and eastern Europe. Mr. Parik works closely with CEPI. Based in Prague, he brings a valuable perspective to countries in his subregion.

At one time or another, all of these authors have presented the chapter, along with market forecasts, at the annual UNECE Timber Committee Market Discussions.

## 8.1 Introduction

By mid-2009 global pulp, paper and paperboard markets were on a rebound following a steep drop in demand that began in 2008 when the global financial crisis reduced consumer spending, industrial production and international trade flows. The drop in demand was most severe for graphic papers and significant also for packaging paper and board, while demand for tissue and sanitary paper was only moderately affected.

Capacity withdrawals in the form of mill shutdowns and downtime helped stabilize pulp and paper commodity prices, which began to increase in most cases in the second half of 2009. Prices for some major commodities such as market pulp were more than fully recovered by early 2010. Global market pulp prices were boosted also by ongoing expansion of woodpulp demand in Asia, particularly in China, and also by temporary shutdowns of significant market pulp capacity in Chile following the severe earthquake there in February 2010.

China became the world's leading producer of paper and paperboard in 2008, surpassing the United States (US) (graph 8.1.1). Whereas US production peaked historically in 1999, production in China increased by over 180% from 1999 to 2009. While US output dropped by 10% in 2009, preliminary reports suggest China's growth in paper and board output continued in 2009 (China Paper Online, 2010).

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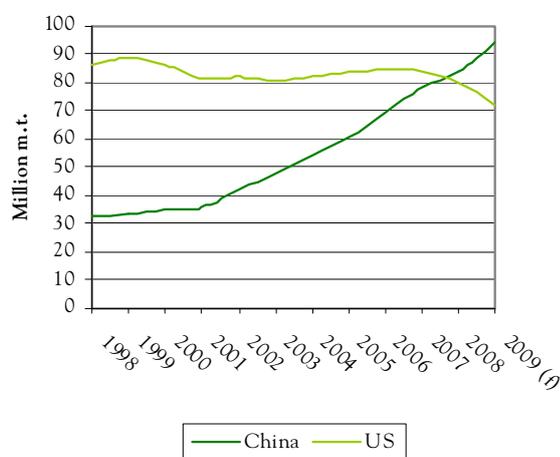
<sup>49</sup> Mr. Bernard Lombard, Trade & Competitiveness Director, Confederation of European Paper Industries, 250 avenue Louise, B-1050 Brussels, Belgium, tel: +32 2 627 49 11, fax +32 2 646 81 37, e-mail: b.lombard@cepi.org., www.cepi.org.

<sup>50</sup> CEPI member countries include: Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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GRAPH 8.1.1

Paper and paperboard production in China and United States, 1998-2009



Note: f = forecast for 2009 for China.

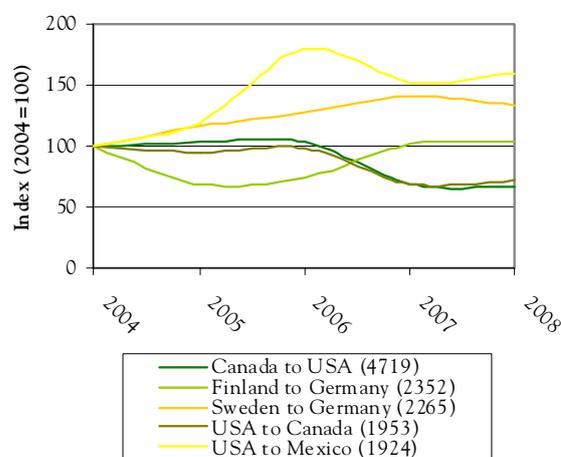
Sources: FAOSTAT data, American Forest & Paper Association, China Paper Online, 2010.

The downturn in European and North American demand reached a nadir in mid-2009 and then began to rebound. However, by the first quarter of 2010, paper and paperboard production levels in both Europe and North America were still well below pre-financial crisis production levels of 2007. Production of paper and paperboard in Europe in early 2010 was running at a level last seen around 2001-2002, while production in the US was at a level last seen in the early 1990s. Consumption and production in both regions were responding to a rebound in both European and North American industrial production.

Paper and paperboard trade among UNECE regions reflected developments in growth, competitiveness and shifts in currency exchange rates. For example, the notable decline from 2003 to 2007 in trade flows between the US and Canada clearly reflects the decline in Canadian exports to the US as a result of the stronger Canadian dollar in recent years and negligible growth in US demand (graph 8.1.2). The effect of expanding Asian markets and competitiveness of producers in non-UNECE regions is reflected in large increases that occurred in trade flows between Europe and non-UNECE countries, and among non-UNECE countries, especially for woodpulp (graph 8.1.3).

GRAPH 8.1.2

Top 5 international trade flows of paper and paperboard by volume, 2004-2008

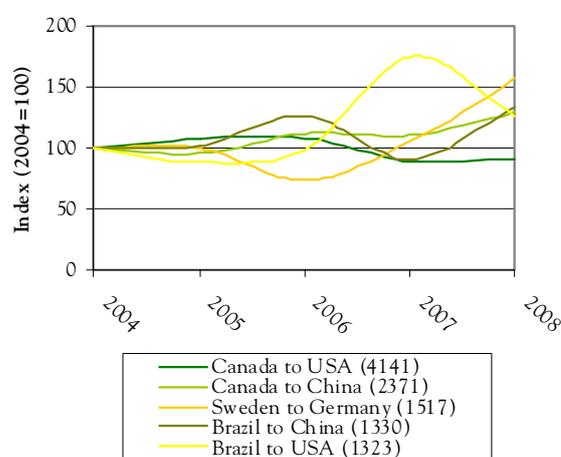


Notes: Values in legend box are in 1,000 metric tons in 2008. Basis of trade flow graphs has been changed from previous Reviews.

Sources: FAO Yearbook of Forest Products, 2010 and previous editions.

GRAPH 8.1.3

Top 5 international trade flows of woodpulp by volume, 2004-2008



Notes: Values in legend box are in 1,000 metric tons in 2008. Basis of trade flow graphs changed from previous Reviews.

Sources: FAO Yearbook of Forest Products, 2010 and previous editions.

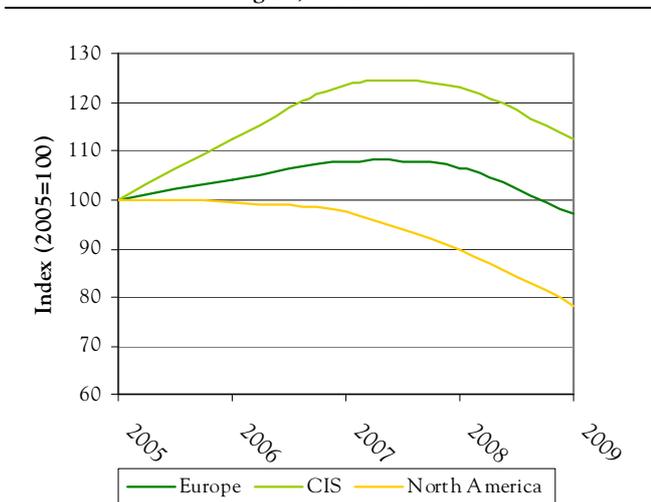
### 8.1.1 Paper and board demand at low point in 2009

Paper and paperboard demand weakened in 2008 and 2009 throughout the UNECE region (graph 8.1.4). North America experienced the largest percentage drop (19.7%) in consumption between 2007 and 2009, followed by the Commonwealth of Independent States (CIS) (9.2 %) and Europe, which fell by only 3.9%. The

decline was a reversal of growth trends for Europe and the CIS subregion in preceding years, while North America continued a downturn that was already underway in 2007.

GRAPH 8.1.4

#### Consumption of paper and paperboard in the UNECE region, 2005-2009



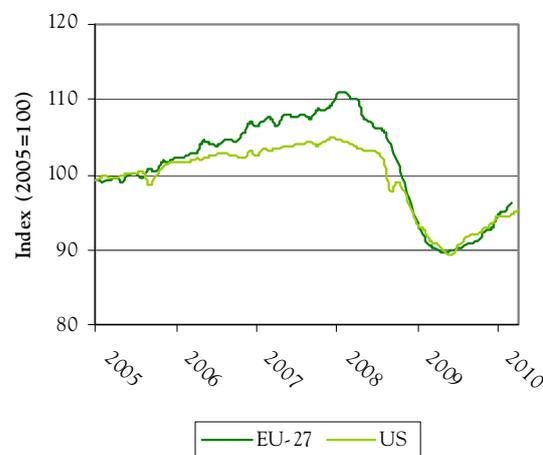
Source: UNECE/FAO TIMBER database and secretariat estimates, 2010.

Industrial production is recognized as a leading driver of paper and paperboard demands, because of its correlation to demand for print advertising and packaging. Following the steep decline precipitated by the global financial crisis in 2008, a rebound of industrial production was underway in Europe and North America in late 2009 and 2010, as illustrated by industrial production indices for the EU27 and the US (graph 8.1.5). The rebound contributed to the simultaneous rebound of pulp, paper and paperboard demands and prices in the second half of 2009 and early 2010. Pulp, paper and paperboard prices had peaked in 2008 and had then weakened along with industrial production in 2008 and early 2009.

The sharp downturn in industrial production in 2008-2009 was slightly greater in percentage terms for Europe than the US, partly because of a reversal of relative currency valuations. The exchange value of the euro was generally high relative to the US dollar in 2008-2009, negatively affecting cost competitiveness of European manufactured goods in global markets. However, in both Europe and North America the rapid drop in industrial production in 2008-2009 closely matched the decline in paper and paperboard demand. By contrast, growth of industrial production in China remained positive over the same period (although growth was somewhat slower) and thus paper and paperboard production appeared to continue to expand in China, though more slowly.

GRAPH 8.1.5

#### Industrial production indices for EU-27 and United States, 2005-2010



Note: Industrial production excluding construction.

Sources: EUROSTAT and US Federal Reserve, June 2010.

## 8.2 Europe subregion

### 8.2.1 Paper and board demand declines further in 2009, and then begins to rebound

Overall consumption of paper and board in the UNECE Europe subregion (41 countries) fell by 9.1% in 2009, dropping to 91.9 million m.t. European Union paper and paperboard consumption declined in 2008 when the global financial crisis first began and then dropped again in 2009 by 9.9%. EU GDP at current prices went down by 4.2% in 2009 (Eurostat, 2010). Imports of paper in Europe in 2009 fell in line with the sharp decrease in demand: the figures for imports include trade within Europe, as well as from countries outside the subregion (table 8.2.1).

Imports into CEPI countries, from non-CEPI countries, fell by 9.0% to 4.7 million m.t. and contributed 5.8% of total European paper consumption in 2009 (5.7% in 2008). Imports from North America accounted for 37.7% of all imports (39.9% in 2008) and decreased by 14.2% to 1.8 million m.t. in 2009. Imports from European countries that are not members of CEPI fell by 8.0% and took a 31.8% share of imports (31.4% in 2008). In contrast, imports from Asia rose by 24.0% to 651,000 m.t. and accounted for 13.9% of imports (10.2% in 2008). CEPI countries maintained an overall positive trade balance (exports exceeding imports) in paper of 10.2 million m.t. in 2009 (11.8 million m.t. in 2008), but this balance has narrowed every year since 2006 when it stood at 13.2 million m.t.

TABLE 8.2.1

**Paper and paperboard balance in Europe, 2008-2009**  
(1,000 m.t.)

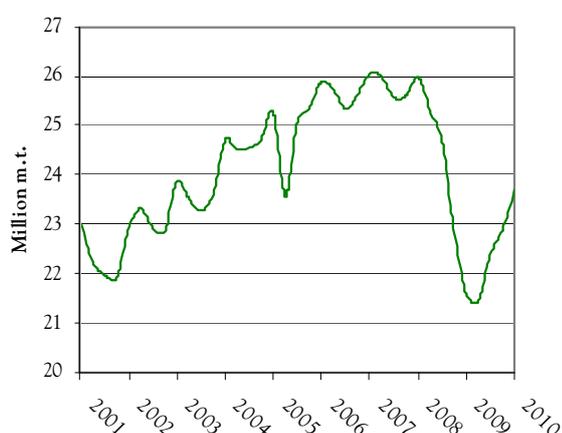
	2008	2009	Change %
Production	108 537	97 250	-10.4
Imports	59 403	54 443	-8.4
Exports	66 789	59 756	-10.5
Net trade	7 386	5 313	-28.1
Apparent consumption	101 152	91 936	-9.1
of which EU27:			
Production	99 115	88 807	-10.4
Imports	54 336	49 058	-9.7
Exports	63 796	57 078	-10.5
Net trade	9 460	8 020	-15.2
Apparent consumption	89 656	80 787	-9.9

**Sources:** UNECE/FAO TIMBER database and secretariat estimates, 2010.

Quarterly production data for Europe indicate that the recent low point occurred in the second quarter of 2009, and there was a modest rebound underway in European paper and paperboard output by the second half of 2009 (graph 8.2.1). The trend in European paper and paperboard production has generally followed a pattern similar to that of European industrial production as shown in graph 8.1.5 above, reflecting the linkage between overall industrial production and the industrial demands for packaging materials, print advertising and other industrial applications of paper and paperboard. The economic improvement was reflected in the results of the first quarter of 2010, where CEPI countries' production improved by 8.8%, over the same quarter in 2009 (CEPI, 2010).

GRAPH 8.2.1

**Production of paper and paperboard in CEPI member countries, 2001-2010**



**Source:** CEPI, 2010.

### 8.2.2 European paper and paperboard production decreases in all sectors

Production of paper in the UNECE Europe subregion decreased by 10.4% in 2009. Production by CEPI countries was at its lowest since 1999. The overall production trend of the CEPI countries in total during 2009 was similar to that of North American producers. Output in the US, for example, was down by 10% in 2009, but production in Europe (and North America) dropped much more significantly than in Asia, particularly in China as was shown above in graph 8.1.1.

Over the longer term, output of paper and board by CEPI countries has increased on average by 1.7% per annum since 1991 and by 0.7% per annum since 2000. Despite mill and machine closures, paper production capacity, standing at 105.5 million m.t. in 2009 (-3.6% compared to 2008), did not contract as much as actual production. The operating rate for 2009 was 85.1%, or 6.4 percentage points lower than in 2008, and the lowest recorded operating rate since CEPI began to collect data in 1991.

### 8.2.3 Declines in European pulp production match declines in paper demand

For Europe as a whole, woodpulp production declined by 13.5% in 2009 relative to 2008 (table 8.2.2). In CEPI countries output fell to the lowest annual production volume since 1996: output of mechanical and semi-chemical pulp fell by 19.2% while production of chemical pulp fell by 10.9%.

TABLE 8.2.2

**Woodpulp balance in Europe, 2008-2009**  
(1,000 m.t.)

	2008	2009	Change %
Production	42 854	37 052	-13.5
Imports	19 364	17 422	-10.0
Exports	13 165	11 504	-12.6
Net trade	-6 199	-5 918	
Apparent consumption	49 053	42 971	-12.4
of which EU27:			
Production	40 172	34 734	-13.5
Imports	18 049	15 829	-12.3
Exports	12 383	10 820	-12.6
Net trade	-5 666	-5 008	
Apparent consumption	45 839	39 742	-13.3

**Sources:** UNECE/FAO TIMBER database and secretariat estimates, 2010.

### 8.2.4 *Eastern European pulp and paper market trends and related issues*

In central and eastern Europe (CEE), 2009 started with a dramatic reduction in production in the pulp and paper sector as demand for final products was significantly lower. Most of the global trends also were experienced in this area, albeit with different strength. Already during the second quarter of 2009, most of the producers returned to their normal levels of production.

As the sawmilling industry had a much deeper problem with global overcapacity, compounded in CEE with structural problems, the pulp and paper industry faced a significant reduction in the availability of sawmill co-products (down about 30%).

CIS countries were exporting a considerable percentage of their wood resources to neighbouring countries as well as exporting primary-processed wood products. Average consumption of wood and wood products per capita in the CEE region was extremely low; therefore, this sector was dependent on demand in western countries and other parts of the world, and experienced the associated negative consequences (preferred markets, exchange rates, logistic costs, etc.).

Newer members of the EU have been implementing all the regulations that are valid in EU as a whole, and as their wealth increases, they also experience the trends found in western countries. Wood harvesting is at a relatively high level against its annual growth, but the tendency declines when there is pressure to protect forests with significant restrictions on wood resources management. One example of this is the Sumava National Park on the border between Czech Republic and Germany. In the past this area, managed in line with the principles of sustainability, contributed importantly to local wood supply. In 2010, however, most of the national park was unavailable for wood supply, forcing local wood users to import wood from greater distances at a higher cost.

Though some political representatives were having misgivings about green energy production that relies on woody biomass, new projects still were being proposed without a thorough consideration of how they would be supplied with raw material. Understandably, the pulp and paper industry in Europe was concerned about policies that encourage production of green energy from woody biomass because of the impact of competition for raw material. Pulp and paper producers were already one of the major green energy producers and users in the region.

The process of returning property to those who owned it before the communist regime took power still was ongoing. The first elections in some countries resulted in the election of governments that wished to push forward with this process. The State, therefore, still was a

significant owner of the forests in the CEE region with both negative and positive effects, including a big influence on the whole market situation.

Even though prices were slowly increasing, transportation of the wood was an increasingly larger problem for a number of reasons. In general, forest owners were in favour of any kind of revenue which could come to their property, but social and protective demands became so expensive and complicated that even this sector, which can work by following the criteria of sustainability, required increasingly higher subsidies. In 2009, the pulp and paper sector in CEE region was under higher pressure than normally but still in a relatively comfortable situation relative to other parts of the world. All cost and other advantages were disappearing and the whole sector needed to reconsider its strategy to stay competitive.

### 8.2.5 *EU policy developments related to pulp and paper activities*

Policy developments within the EU have been observed in a broad range of issues such as climate change, energy and environment, raw materials, products and research, and trade and transport.

Regarding climate change, the features of the Emissions Trading Scheme (ETS) for 2013-2020 have been discussed extensively, particularly the treatment of the energy-intensive sectors such as the pulp and paper industry. The European pulp and paper industry was considered to be at risk of "carbon leakage" because of its exposure to global competitiveness. The functioning modalities of the ETS after 2013 were still being considered. National renewable energy action plans were being drafted by the EU Member States to meet the ambitious 2020 goal.



Source: Metsäliitto, 2010.

Concerning environmental aspects, the revision of the Integrated Pollution Prevention and Control (IPPC) directive was being discussed along with the revision of the Best Available Techniques in the Pulp and Paper

Industry. It will shape the future legal environment for the operation of the mills.



Source: Metsäliitto, 2010.

On raw materials, the EU was developing a long-term strategy to secure raw material availability and efficient use. Some sustainability criteria were adopted for solid biomass, but with non-binding effects. These criteria are of crucial importance if market distortion is to be avoided with the use of wood for pulp and paper manufacturing. Forest certification and biodiversity remained high on the agenda. Regulation for placing timber and timber products on the market was being developed.

Concerning recovered paper, there was some progress towards the adoption of objective criteria to put an end to the “waste” status of recovered paper. The European Committee for Standardisation (Comité Européen de Normalisation – CEN) standard EN 643, which lists and describes all the individual recovered paper grades, was under scrutiny; this was expected to lead to the adoption of a revised version.

The European Recovered Paper Identification System, which was introduced by the recovered paper chain at the end of 2008 to demonstrate and improve the traceability of recovered paper, was getting increasing support. By mid-2010, more than 600 suppliers of recovered paper worldwide had registered on the European Recovered Paper Identification website to get a unique identification code for their companies and their recovered paper depots.

This unique supplier code identifies recovered paper with its supplier, who in turn knows his supplier and so forth. Full traceability is therefore ensured from the sources of recovered paper to the pulpers of the paper mills, whereby commercial confidentiality is guaranteed. The most visible sign of the identification are the new codes, which can be seen on recovered paper bales everywhere in Europe in various forms, colours and sizes. The identification system is not only intended for recovered paper delivered in bales but also for loose

material, as the supplier number can be identified in delivery documents. Estimates by CEPI indicated that 30% of recovered paper bales were marked by mid-2010, of which half complied with the European system. Established national or company systems for Recovered Paper Identification also continued to be used.

Regarding product policy, several initiatives had been developed by the EU Commission such as the Sustainable Consumption and Production initiative and the Lead-Market initiative which add to the green public procurement and eco-design initiatives.

When it comes to trade-related issues, the EU was active on the bilateral front, negotiating Free Trade Agreements with several regions or countries such as the Republic of Korea, and Central and South America. Discussions also started between the EU and Canada, India and the ASEAN countries. Discussions with Mercosur were about to restart.

Regarding trade disputes, several countries targeted European paper exports with anti-dumping, anti-subsidy and safeguard investigations during the first half of 2010, though to what extent there was strong evidence to support such allegations remained unclear. The EU launched anti-dumping and anti-subsidy investigations against Chinese fine papers exports to Europe, like the US had done in 2009. The decisions, expected by the end of 2010, could lead to the adoption of duties.

Concerning transport, a wide range of policy initiatives was affecting the industry which was looking for all competitive and sustainable transport modes. It was promoting the use of higher capacity trucks to make road transport more cost effective and more sustainable. Regarding rail transport, freight transport liberalisation had not delivered on expectations yet. CEPI adopted some guidelines to help companies assess their carbon footprint related to transport activities. Regarding load safety, CEN was about to adopt some EU rules that were expected to further harmonise practices, contributing to the EU Single Market objectives.

## 8.3 CIS subregion, focusing on the Russian Federation

### 8.3.1 Long-term perspectives on industry growth

Twenty-five years ago, under a planned economy, the former USSR held 4th place in world paper and paperboard output and accounted for 5.2% of global output. By the mid-1990s this share had been reduced to 1.1% (for the Russian Federation): it has since expanded and in 2009 was about 2%. By contrast, neighbouring Chinese and Finnish industries grew rapidly over the same period (using large volumes of pulpwood imported from the Russian Federation).

Given the Russian Federation's vast forests, the potential of the Russian pulp and paper industry to contribute to global pulp and paper output goes far beyond the current 2%. Despite the fact that many of its forests are inaccessible economically, those that can be accessed offer a reliable raw material base for further development of the pulp and paper industry. Available forest resources make possible provision of both the pulp and paper industry and woodworking industry, with wood raw material for meeting internal needs for forest and paper products as well as for exporting these products in large volumes.

Currently, the entire Russian pulp and paper industry is in the private sector whereas Russian forests remain State property. Forest land is leased. In terms of resource volume, the forest sector of the Russian Federation has considerable potential for further development.

Among the most important forest sector policy developments of 2004-2009 in the Russian Federation were the following:

- All pulp and paper mills became part of the private sector (no longer state-owned enterprises).
- The Forestry Complex Council, headed by the First Vice-Premier Minister V. Zubkov, was established.
- The Russian Forestry Technological Platform was established with a connection to the European Forestry Technological Platform.

In addition, the Russian Federation experienced a changing structure of forest and paper exports, caused in part by the global economic crisis and the changed exchange rate of ruble (compared to the euro and dollar), and facilitated by industry investments in the Russian Federation and international joint ventures such as the Ilim Group alliance (formed by International Paper Corporation and Ilim Pulp Enterprise in 2007).

The Russian Federation's relative economic and political stability since the major currency revaluation of 1998 and a more expansionary macro-economic policy in 1999, have created conditions that have allowed a continuous increase of pulp, paper and paperboard output from the late 1990s to 2008 with output more than doubling since 1996. Both consumption and output of pulp and paper products increased in the Russian Federation throughout the period 2004-2007 and into the first half of 2008. However, in the second half of 2008 there was a slump in production of pulp, paper and paperboard. This setback in production continued into 2009 (table 8.3.1). During 2009, the Russian Federation's total output of chemical pulp (both pulp for paper and paperboard and market pulp) decreased by 7.5%, the output of market pulp decreased by 11.9%, and the output of paper and paperboard decreased by 2.9%, including a 0.9% increase in output of newsprint.

TABLE 8.3.1

**Output of pulp, paper and paperboard in the Russian Federation, 2008-2009**  
(1,000 m.t.)

	2008	2009	Change %
Chemical pulp total:	5 913	5 472	-7.5%
Market pulp	2 286	2 014	-11.9%
Paper and paperboard	7 364	7 154	-2.9%
Total Market pulp, Paper and Paperboard	9 650	9 168	-5.0%
Paper total including:	4 004	3 923	-2.0%
Newsprint	1 988	2 006	0.9%
Offset paper	426	403	-5.4%
Paperboard total:	3 360	3 231	-3.8%
Corrugated board	2 599	2 541	-2.2%

*Source:* Goscomstat of the Russian Federation; PPB-express, author's data handling, 2010.

### 8.3.2 CIS and the Russian Federation balance of trade

Exports of paper and paperboard from the CIS region increased in 2009 while imports declined (table 8.3.2). Meanwhile, imports and exports of woodpulp both decreased in 2009.

TABLE 8.3.2

**Paper, paperboard and woodpulp balance in the CIS, 2008-2009**  
(1,000 m.t.)

	2008	2009	Change %
Paper and paperboard			
Production	9 270	8 943	-3.5%
Imports	2 836	2 444	-13.8%
Exports	2 937	3 020	2.8%
Net trade	100	575	473.5%
Apparent consumption	9 170	8 368	-8.7%
Woodpulp			
Production	7 254	6 825	-5.9%
Imports	224	200	-10.7%
Exports	2 035	1 715	-15.7%
Net trade	1 812	1 516	-16.3%
Apparent consumption	5 443	5 310	-2.4%

*Source:* UNECE/FAO TIMBER database, 2010.

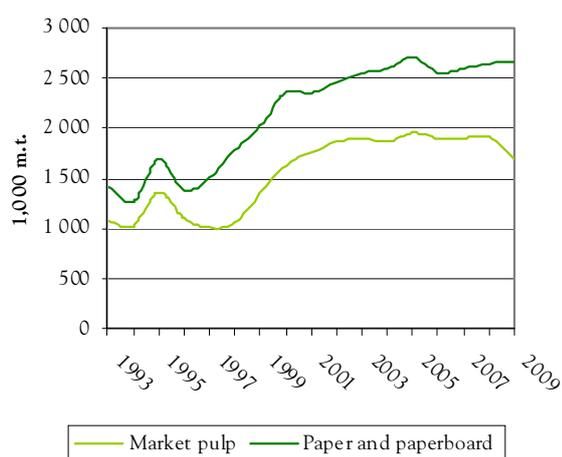
For the Russian Federation, exports of pulp and paper products hold a dominant position among forest-based products in terms of value, but overall forest product exports still have a pronounced raw material character. In terms of roundwood equivalents, roundwood and sawn wood exports accounted for 83.8% of the Russian

Federation's exports in 2006, while pulp and paper accounted for only 16.2% of exports.

In 2005-2009, the Russian Federation's exports of paper and paperboard levelled off, while exports of market pulp decreased (graph 8.3.1). Total exports of pulp, paper and paperboard had reached peak levels in 2005. Although volumes increased over the past decade, Russian exports as a percentage of production 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 were China (market pulp, kraft linerboard), Ireland (market pulp, kraft linerboard), India (newsprint), and Turkey (newsprint).

GRAPH 8.3.1

Exports of market pulp, paper and paperboard from The Russian Federation, 1993-2009

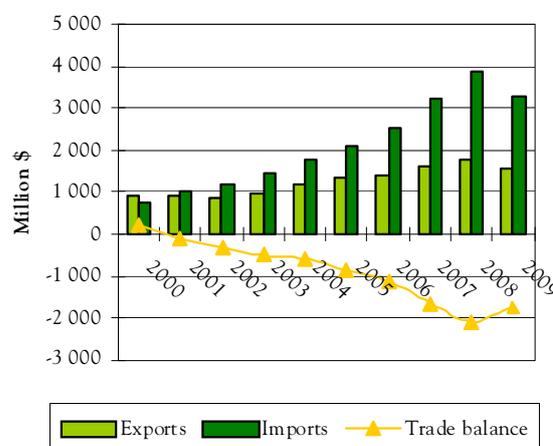


Sources: Goscomstat of the Russian Federation, PPB-express, Moscow, author's estimates, 2010.

Although the tonnage of Russian paper and paperboard exports greatly exceeds the tonnage of imports, the trade balance in terms of value has continued to deteriorate, as the Russian Federation has generally expanded its imports of higher value paper products. The annual trade deficit in paper and paperboard has been negative since 2001. In 2008 it was about \$2,000 million (graph 8.3.2). The higher value of imports of paper and paperboard as compared to their exports was mainly due to the fact that the Russian Federation was importing high-value products such as quality materials for container and packaging, coated paper, and tissue, whereas exports consisted mainly of lower-value commodity products such as newsprint and kraft linerboard.

GRAPH 8.3.2

Value of The Russian Federation exports and imports of paper and paperboard, 2000-2009



Sources: State Customs Committee, Pulp. Paper. Board Magazine, PPB-express, PPB Exports, PPB Imports, author's estimates, 2010.

### 8.3.3 Implications of global financial crisis for the Russian Federation

The export-oriented nature of the Russian Federation's forest sector and the fact that it relies heavily on exports of unprocessed logs and pulpwood meant that the global financial crisis had a powerful impact on the whole forest sector. In late 2008 to early 2009, a drastic change took place both in the structure of exports of forest and paper products and in the internal market. The slump in industrial production in other countries (importers of Russian roundwood) coupled with increased duties on exports resulted in a sharp fall in roundwood exports, mainly to Finland. Lower consumption of consumer goods in the US and western Europe led China to cut back production, and this resulted in slower growth in China's consumption of packaging paper and paperboard and, consequently, a decline in Russian exports of kraft linerboard to China. There was also a simultaneous shrinkage of market pulp exports from the Russian Federation to China.

Compounding the effects of the global financial crisis, high energy prices, and the Russian Federation's position as a leading supplier of energy feedstocks caused significant appreciation the ruble against both the euro and the dollar. Thus, foreign competition in a number of product areas has increased (office paper, newsprint, etc.) both in the internal and external markets. The ongoing economic crisis has actually produced a stoppage of a number of so-called priority projects developed in recent years that were oriented toward more in-depth processing of wood in areas of abundant resources in the Russian Federation.

Tissue paper products were a notable exception. In recent years, tissue paper accounted for more than 20% of total paper and paperboard imports to the Russian Federation. The rise in the exchange rate of the ruble contributed to increasing output of tissue paper grades in the Russian Federation. New capacities were put into operation at the Syassky Pulp and Paper Mill in 2008 in Syktyvkar. In 2009 a new tissue paper enterprise of the SCA Company also began operating not far from Moscow.

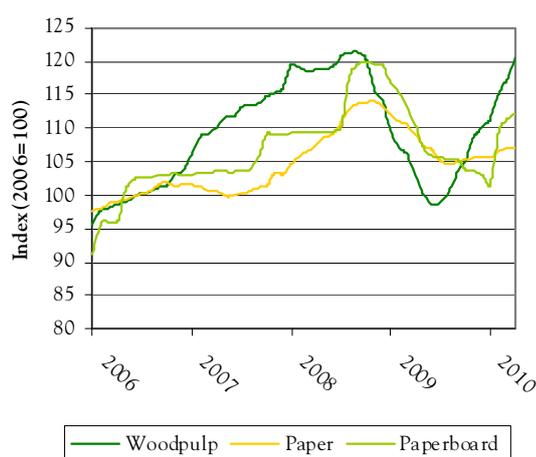
## 8.4 North America subregion

### 8.4.1 Prices rebound in second half of 2009

As an indicator of improved sector performance as described below, US price indices for paper, paperboard and woodpulp were on the rebound in the second half of 2009 and first half of 2010 (graph 8.4.1). Prices collapsed in 2009 after peaking in the third quarter of 2008. However, even at the bottom of the curve, prices were still better than in the early part of 2006. As reported last year, woodpulp and recovered paper prices were the first to level out and then began to increase by mid-year 2009. Prices subsequently rebounded for most paper and paperboard commodities in the second half of 2009. Prices for fibre input commodities such as market pulp were fully recovered (to 2008 peak levels) by the first half of 2010.

GRAPH 8.4.1

US monthly price indices for woodpulp, paper and paperboard, 2006-2010



Sources: US Department of Labor, Bureau of Labor Statistics, Producer Price Indices, 2010.

More than any other wood product, paper prices seem to be highly cyclical so price fluctuations are not entirely unexpected: it is in the nature of the industry. The fact that market pulp and recovered paper prices led the

market rebound suggests that this was driven as much by global demand and limited fibre supply, as it was by the fairly modest rebound in domestic paper and paperboard demand. Factors contributing to limited fibre supply included generally reduced volumes of paper recovery for recycling because of reduced paper consumption in Europe and North America, unusually wet weather that constrained pulpwood harvest in the US South in the winter of 2009-2010, and the severe Chilean earthquake in February of 2010 that curtailed market pulp supplies from Chile for several months. In any case, although consumption and demand were only modestly improved, commodity prices were much improved by mid-year 2010 relative to price levels of one year earlier. The price rebound is attributable also in part to capacity withdrawals in the form of mill shutdowns and mill downtime, higher export demand, and the effect of growing pulp, paper and board consumption in Asia. In 2009, the tonnage of US paper and paperboard exports exceeded imports for the first time in modern memory. In terms of trade value, the US has been running a surplus in net trade of pulp, paper and board products since 2008, and the trade surplus rose from \$1.2 billion in 2008 to \$3.3 billion in 2009 (US Census Bureau, 2010). Although markets were on the rebound, US paper and paperboard capacity declined by 2.5% in 2009, and it was reported that 14 US mills were permanently closed in 2009, along with a total of 27 paper and paperboard machines (AF&PA press release, 22 March 2010).

North American production of paper and board declined by 11.5% in 2009 (table 8.4.1), while separately US output fell by 10% and Canadian output by a larger margin. However, demand and prices were on the rebound by the second half of 2009.

TABLE 8.4.1

Paper and paperboard balance in North America, 2007-2008

(1,000 m.t.)

	2008	2009	Change %
Production	95 967	84 926	-11.5%
Imports	16 325	13 099	-19.8%
Exports	23 996	20 803	-13.3%
Net trade	7 671	7 704	0.4%
Apparent consumption	88 296	77 221	-12.5%

Source: UNECE/FAO TIMBER database, 2010.

### 8.4.2 *Newsprint demand continues secular decline while modest rebound occurs in demand for other graphic papers*

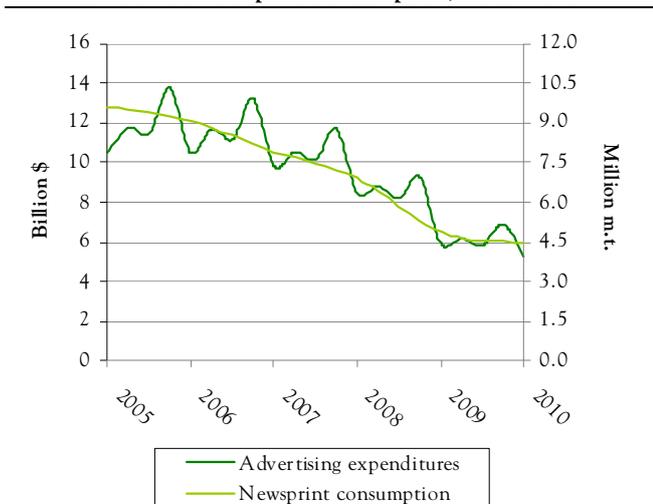
Print advertising expenditures are traditionally the leading source of revenue for US newspapers, and over the past decade a decline in print advertising expenditures at US newspapers was a leading contributor to a secular decline in US newsprint demand. The ongoing decline of newsprint consumption in North America accelerated in 2008 and 2009 and continued into 2010.

There is a close correlation between the general trend in print advertising expenditures at US newspapers and annual US newsprint consumption (graph 8.4.2). Newspaper advertising expenditures have a seasonal cycle, generally peaking in the last quarter of each year during the holiday season, but the general long-term trend has been downward for both print advertising expenditures and newsprint consumption. Both have declined by about 50% since early 2005.

US newsprint consumption continued to decline into the first half of 2010 despite the more general rebound of demand for other pulp, paper and paperboard commodities. The secular decline for newsprint is a reflection of a broad structural change in advertising media, chiefly a shift of advertising expenditures away from print media such as newspapers toward electronic media such as television and Internet (Newspaper Association of America, 2010).

GRAPH 8.4.2

Quarterly US newspaper print advertising expenditures and annual US newsprint consumption, 2005-2010



**Sources:** Newspaper Association of America, American Forest & Paper Association, 2010.

Apart from newsprint, demand for the other graphic papers (printing and writing paper) also experienced a

significant decline in North America in 2008-2009, but a modest rebound of demand for printing and writing paper was underway by the first half of 2010. Nevertheless, printing and writing paper consumption in the US has declined by about 25% since 2005. Total North American (US and Canadian) graphic paper consumption declined in 2009 by 19.4% relative to 2008.

### 8.4.3 *Rebound for other paper and paperboard*

Apparent consumption of packaging paper and board in North America declined by 10.2% in 2009 relative to 2008, while production declined by 8.6%. The decline in production for Canada was 14.4% while US production declined by 8.1%. Demand for packaging paper and board rebounded in the second half of 2009 along with the rebound in US industrial production. According to the American Forest & Paper Association's (AF&PA) April 2010 Containerboard Report, US production of containerboard (case materials) from January to April 2010 had increased by 13.5% over the same period in 2009, generally reflecting the ongoing rebound in US industrial production, while the containerboard operating rate for April 2010 rose to 95.0%, roughly ten percent higher than the average for 2009 (AF&PA, 2010). Increases in US production and operating rates were similarly reported for all other categories of paperboard. Higher operating rates contributed to the rebound in paperboard commodity prices in late 2009 and early 2010.

### 8.4.4 *Woodpulp, pulpwood, and recovered paper market trends*

North American production of woodpulp declined by 11.5% from 2008 to 2009, with Canadian production dropping by 16.0% and US production by 9.8%. Exports from the US declined by just 3.5%, to 6.8 million m.t., while Canadian exports dropped by 26.9% to 7.0 million m.t., trends that were driven in part by relative currency values. From 2005 to 2009, a period when the Canadian dollar was historically strong relative to the US dollar, US pulp production declined by 13.0% (7.1 million m.t.), while Canadian pulp output declined by 32.3% (8.2 million m.t.), North American pulpwood supply since 2005 has been negatively impacted by the housing downturn, because lower sawnwood and plywood production reduced supplies of pulpwood chips from sawmills and plywood mills. The downturn in chip supply was reflected in a temporary increase in pulpwood prices. However, the reduction of pulpwood supply was overshadowed in 2008 and 2009 by large declines in pulp output and fibre demand. Thus, the latest pulpwood price cycle generally peaked in North America in the second half of 2008 in most US regions (or earlier in that year in Canada). By April of 2009 US delivered pulpwood prices had dropped by about 10% from the peak levels of

November 2008 (according to the US Bureau of Labor Statistics, pulpwood producer price index), but by April of 2010, the pulpwood price index was fully recovered as woodpulp prices rebounded (as shown in graph 8.4.1 above).



Source: M. Fonseca, 2009.

The AF&PA announced that a record high 63.4% of the paper consumed in the US was recovered for recycling in 2009 (AF&PA, March 2010 press release). This was a substantial increase from 57.4% in 2008. However, total fibre consumption at US paper and paperboard mills (including woodpulp, recovered paper and non-wood fibre) was reported to have declined by 10.5% in 2009 to 72.6 million m.t., reflecting the 10% reduction in US paper and paperboard production (AF&PA Annual Fiber Consumption Report, 2010). US exports of recovered paper nevertheless increased from 17.7 million m.t. in 2008 to 19.0 million m.t. in 2009.

#### 8.4.5 Global trade issues gain attention

Global trade issues related to the pulp and paper sector gained more attention in North America in 2009-2010. The US Department of Commerce reached preliminary countervailing and antidumping duty determinations against certain coated paper product imports from China and Indonesia. The determinations stemmed from petitions filed in 2009 by several North American paper producers alleging unfair trade practices.

The original petitions alleged that subsidies were being provided to Chinese paper producers, including low interest loans, tax subsidies, input subsidies, land use programmes, grants, and export tax subsidies, along with pervasive undervaluation of China's currency (Paper Age, September/October, 2009). Similarly, the petitions alleged that Indonesian paper companies were benefiting from timber provided from government-owned land at below-market prices, a ban on log exports, government loans, debt forgiveness, and tax incentives for certain

encouraged businesses (Ibid.). In March 2010, the US decided to impose preliminary countervailing duties ranging from 3.92 to 12.83% on coated paper imports from China and Indonesia (Reuters press, 2010).

Amid global trade issues there was also emerging concern about exploitation of intellectual property rules as an aggressive new form of restraint on free trade. In 2010, the US identified "indigenous innovation" policies as a serious concern (USTR 2010 Special 301 Report). Such "indigenous innovation" policies would require that research and development (R&D) on products be conducted at least partially within a country to be accredited for government procurement within that country. Products that were developed by R&D outside the country (e.g., that were patented entirely outside the country) could be denied accreditation for government procurement.

In November 2009, for example, Chinese government agencies issued the "Circular on Launching the 2009 National Indigenous Innovation Product Accreditation Work", requiring companies to file applications by December 2009 for their products to be considered for accreditation as "indigenous innovation products." This Circular, and revisions to it issued in April 2010, provide for subsequent catalogues to be issued that give preferential treatment in government procurement to any products that are granted this accreditation. Provinces and municipal governments have also reportedly issued their own "indigenous innovation" catalogues related to government procurement.

As reported by the Office of the US Trade Representative, "The US is deeply troubled by the development of policies that may unfairly disadvantage U.S. intellectual property rights holders by promoting 'indigenous innovation' including through, among other things, preferential government procurement and other measures that could severely restrict market access for foreign technology and products" (USTR, 2010). In addition, the US Trade Representative, Ambassador Ron Kirk, stated, "We are seriously concerned about China's implementation of 'indigenous innovation' policies that may unfairly disadvantage U.S. intellectual property right holders. Procurement preferences and other measures favouring 'indigenous innovation' could severely restrict market access for American technology and products" (USTR, 2010).

The tax credit received by US pulp makers for use of black liquor in boilers during 2008 and 2009 expired at the end of 2009. The credit, which was intended for car and truck users, provided a credit for mixing diesel fuel with an alternate fuel. Pulp mills obtained several billion dollars in tax credits for use of black liquor used jointly with some diesel fuel.

US pulp producers received a tax credit for combustion of black liquor in boilers in 2008 and 2009. However, the tax credit programme expired at the end of 2009. The tax credit stemmed from provisions of the 2005 Highway Bill, a US law that provided tax credits for alternative fuels that could replace gasoline or diesel, including liquefied petroleum gas (LPG), compressed or liquefied natural gas (LNG), liquefied hydrogen, and liquid fuel from coal, as well as biomass-based liquid fuels (but not ethanol, methanol, or biodiesel, which have separate tax provisions). In 2008 it was also applied to black liquor, a combustible by-product of the pulping process. The US Internal Revenue Service determined in 2009 that combining black liquor with diesel fuel creates an “alternative fuel mixture” for purposes of the alternative fuel credit (IRS, 2009). Thus, a tax credit was provided for combustion of black liquor as an alternative fuel when mixed with diesel fuel. Pulp producers may have obtained over \$8 billion in black liquor tax credits in 2009 (Accuval, 2010).

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