

## Chapter 8

# *Pulp and paper demand deteriorates as global economic crisis takes hold: Markets for paper, paperboard and woodpulp, 2008-2009<sup>48</sup>*

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### Highlights

- Pulp and paper production and consumption in both Europe and North America declined in 2008 and 2009 as the global economic crisis took hold.
- In early 2009, leading trade associations were reporting year-over-year declines of 17% in total paper and paperboard production in both Europe and the United States, considerably more than the 2008 drop.
- Capacity-utilization rates deteriorated in Europe and North America, leading to a wave of capacity withdrawals in the form of mill downtime and mill shutdowns.
- By mid-2009, pulp and paper commodity prices were beginning to stabilize or increase slightly, although prices remained generally well below peak levels of the preceding year.
- Energy and climate policies gained industry attention in North America via alternative fuel tax credits (applicable to black liquor), renewable fuel standards, and energy and environmental improvement assistance.
- European Union political developments relevant to pulp and paper included an energy and climate package, illegal logging, and reclassifying recovered paper as “secondary material” instead of “waste”.
- In June 2009, the Confederation of European Paper Industries called for a temporary moratorium on new environmental rules for the sector in response to the economic crisis.
- Negative impacts of the economic crisis on importers of Russia’s timber combined with consequences of Russia’s rising roundwood export tax, have prompted discussion of further postponing or even cancelling the log export tax.
- The European paper industry called on the European Commission to take leadership or risk jeopardizing the industry’s future.
- Global forest products industry CEOs, who represent the pulp and paper industry worldwide, have called for a level playing field to reboot the global economy.

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## Secretariat introduction

The secretariat greatly appreciates the continued collaboration with the four authors of this chapter on the pulp and paper market. Thanks to these regular contributors, the *Review* has an overview of paper, paperboard and woodpulp market and policy developments across the UNECE region. Dr. Peter Ince,<sup>49</sup> Research Forester, USDA Forest Service, deserves special thanks for coordinating the contributions from the co-authors, as well as analysing the North American developments.

In alphabetical order, we extend our gratitude to the other analysts, beginning with Professor Eduard Akim, PhD,<sup>50</sup> of the St. Petersburg State Technological University of Plant Polymers and the All-Russian Research Institute of Pulp and Paper Industry, who described developments in the Russian pulp and paper sector. Mr. Bernard Lombard,<sup>51</sup> Trade and Competitiveness Director, Confederation of European Paper Industries (CEPI), is well placed to analyse trends in western Europe. Mr. Tomáš Parik,<sup>52</sup> Director, Wood and Paper, A.S., highlighted developments in central and eastern 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 the analysis, but also validates 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 20-country region, the EU27 or the UNECE European subregion of 41 countries. Due to small discrepancies between CEPI and UNECE definitions, figures may vary slightly, but trends remain the same.

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## 8.1 Introduction

Global pulp, paper and board markets experienced an abrupt transition over the past year. A year ago (mid-year 2008) economic conditions indicated markets and prices were peaking amid a slowing economy, rising input costs, and erosion of profits. That was on the heels of a global energy crisis but just before full onset of the global financial crisis later in the year. In the second half of 2008 and continuing into the first half of 2009, global paper and paperboard demand deteriorated rapidly as the financial crisis abruptly reduced consumer spending, international trade flows and industrial production. The downturn was most severe for graphic papers and significant also for packaging paper and board, while tissue and sanitary paper markets were only modestly affected.

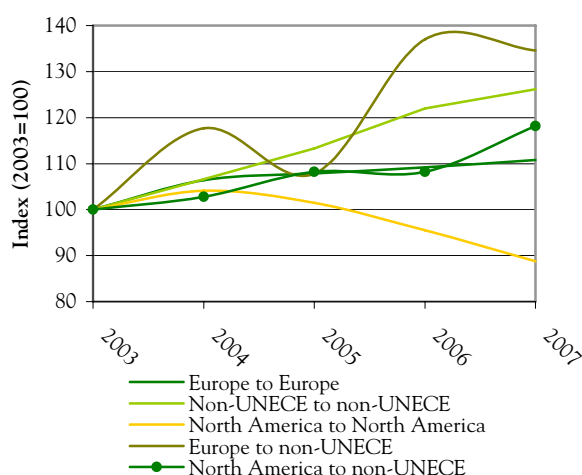
With capacity withdrawals in the form of mill shutdowns and downtime, pulp and paper commodity prices appeared to be stabilizing or slightly increasing by mid-2009, but pulp, paper and board prices were still well below peak levels of the preceding year. In the UNECE region and throughout the world, the economic downturn resulted in reduced woodpulp production, even in China, which reportedly experienced a 17% year-over-year decline in woodpulp output as of April, 2009 (BOABC, 2009).

Negative impacts of deteriorating pulp output on pulpwood markets varied in timing across the UNECE region. Negative price effects of declining fibre demand were offset to varying degrees by increasing demand for wood energy or declining fibre supply due to declining sawnwood and plywood production. Pulpwood prices globally were reported to be in a substantial decline by the first quarter of 2009 (Wood Resource Quarterly, 2009). North American pulpwood prices were heading lower by the first half of 2009, but trends also varied by region (see chapter 4 for more analysis).

Major paper and paperboard trade flows within the UNECE region in recent years reflect ongoing developments in competitiveness and growth, influenced also by shifts in currency exchange rates. For example, the notable decline in trade flows from 2003 to 2007 between US and Canada (North America to North America) clearly reflect both 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 8.1.1). The powerful influence of expanding Asian markets and competitiveness of producers in non-UNECE regions is also reflected in large increases in trade flows between Europe and non-UNECE countries, and between non-UNECE countries and other non-UNECE countries, for both paper and paperboard and woodpulp (graph 8.1.2).

GRAPH 8.1.1

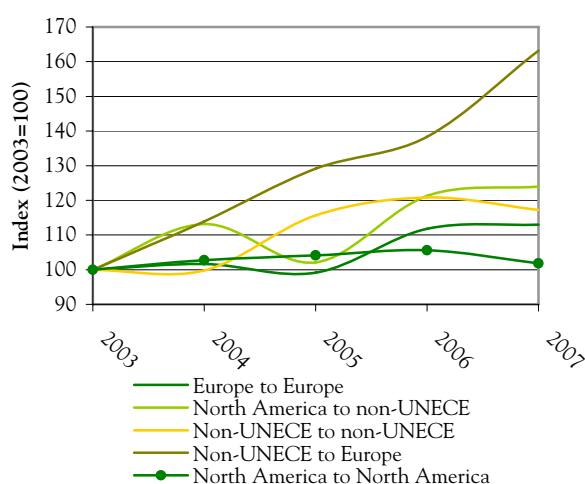
Major paper and paperboard trade flows in the UNECE region, 2003-2007



**Note:** Corresponding trade flow table in electronic annex.  
**Source:** UN Comtrade/EFI, 2009.

GRAPH 8.1.2

Major woodpulp trade flows in the UNECE region, 2003-2007



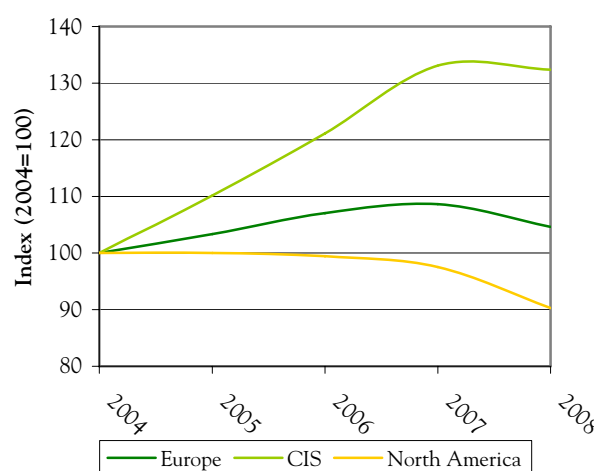
**Note:** Corresponding trade flow table in electronic annex.  
**Source:** UN Comtrade/EFI, 2009.

### 8.1.1 Paper and paperboard demand deteriorates

In 2008, paper and paperboard demand deteriorated throughout the UNECE region, and in three subregions (graph 8.1.3). North America experienced the largest percentage decline in consumption (-7.4%), followed by Europe (-3.7%), and lastly the CIS (-0.5%). The decline was a reversal of growth trends for Europe and the CIS in preceding years, while North America continued a downturn that was already under way in 2007.

GRAPH 8.1.3

Consumption of paper and paperboard in the UNECE region, 2004-2008

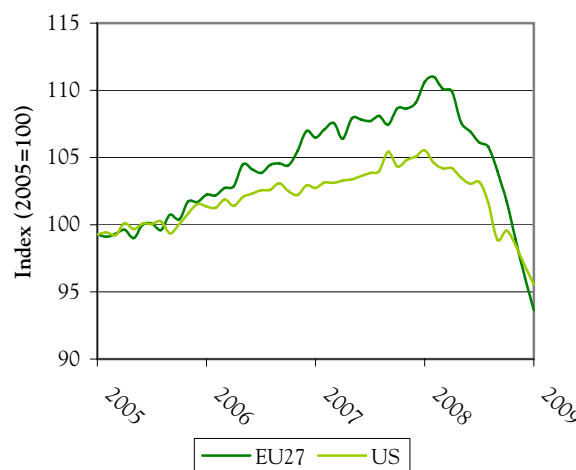


**Source:** UNECE/FAO TIMBER database, 2009.

Pulp, paper and paperboard prices had actually reached cyclical peaks in 2008, but global demand conditions deteriorated rapidly towards the end of 2008 and into early 2009. Global manufacturing had become increasingly stressed in 2008 as manufacturers faced record increases in manufacturing costs driven by higher energy prices. The global financial crisis in late 2008 had a crushing impact on both European and North American industrial production, which is a leading driver of paper and paperboard demand in both regions (graph 8.1.4).

GRAPH 8.1.4

Industrial production for Europe and the United States, 2005-2009



**Note:** Industrial production excluding construction.  
**Sources:** EUROSTAT and US Federal Reserve, 2009.

The recent plunge in industrial production was actually greater for Europe (-20%) than for the US (-15%), in large part because of a reversal of relative currency valuations. The US dollar was quite strong relative to the euro in 2001-2002, but the opposite was the case over the past year, reducing the competitiveness of European producers. As a result, paper and paperboard markets in Europe and North America deteriorated, paralleling the rapid drop in industrial production. According to data from industry trade associations, paper and paperboard production declined by about 17% from early 2008 to early 2009 in both Europe and in the US.

## 8.2 Europe subregion

### 8.2.1 Paper and board demand declined in 2008 as the global financial crisis took hold

Overall European paper and paperboard consumption fell by 3.7% in 2008 (table 8.2.1), a trend that became more pronounced as the global financial crisis took hold. European (EU27) GDP, in volume, rose by a bit less than 1% in 2008, but that masked a 1.7% fall in the final quarter (Eurostat, 2009). In the CEPI-member countries of Europe, paper and board demand fell by 4.0% in 2008, with a similar drop in production (-4.0%), reflecting a weakening global economy, and causing down-time and closures in most parts of the industry, particularly in the final months of the year. Demand for graphic papers was most severely affected by the economic downturn in 2008 and into early 2009.

Imports of paper into CEPI countries remained virtually unchanged at 5.4 million tons and contributed 6.2% of total European paper consumption in 2008 (5.9% in 2007). North America accounted for 43.7% of total imports (41.0% in 2007) and increased by 6.7% to 2.4 million tons in 2007. Imports from "non-CEPI" Europe fell by 2.5% and took a 27.9% share of imports (28.7% in 2007). Imports from Asia fell by 23.8% compared with a sharp rise in the previous year and accounted for 10.3% of imports (12.8% in 2007). Despite the decline in exports, CEPI countries maintained an overall positive trade balance (exports exceeding imports) in paper of 11.6 million tons in 2008 (12.2 million tons in 2007).

There was an overall decrease in consumption of graphic grades of 4.5% in 2008 when compared to 2007, a fall of 2 million tons. Imports of graphic grades from outside CEPI countries fell by 3.9% and exports to countries outside CEPI decreased by 6.4%. Overall demand for packaging grades fell by 3.3% (-1.2 million tons) compared to 2007. Imports from outside CEPI rose by 1.2% whilst exports decreased by 1.0%.

Consumption of newsprint by CEPI countries decreased by 3.0% to 10.3 million tons (-315,000 tons) in 2008 while demand for uncoated mechanical grades actually rose by 0.4% (+22,000 tons). Demand for coated mechanical grades fell by 5.4% (-466,000 tons). Consumption of coated woodfree grades fell by 2.8% (-248,000 tons) to 8.7 million tons and demand for uncoated woodfree grades fell by 10.1% (-971,000 tons) to 8.6 million tons. Overall demand for coated grades fell by 4.1% to 16.9 million tons in 2008 while uncoated grades decreased by 6.1% to 14.5 million tons. Consumption of mechanical grades fell by 3.0% (-444,000 tons) whilst consumption of woodfree grades fell by 6.6% (-1.2 million tons).

The decline in demand accelerated toward the end of 2008 and into early 2009. Year-to-date estimates for the first five months of 2009 from the Association of European Publication Paper Producers showed European demand for newsprint down by 16% relative to the same period of 2008, while total demand for supercalendered magazine paper, coated and uncoated mechanical paper was down by 19% over the same period (CEPIPRINT, 2009). Statistics for the first four months of 2009 showed European coated woodfree paper demand down by 19% and uncoated woodfree paper demand down by 16%, relative to the same period in 2008, considering all EU27 countries plus Norway and Switzerland (CEPIFINE, 2009).

TABLE 8.2.1

#### Paper and paperboard balance in Europe, 2007-2008 (1,000 m.t.)

Europe	2007	2008	Change %
Production	108 798	105 662	-2.9
Imports	62 660	57 568	-8.1
Exports	71 788	67 203	-6.4
Net trade	9 128	9 635	5.6
Apparent consumption	99 670	96 027	-3.7
Of which: EU27			
Production	102 333	99 299	-3.0
Imports	57 126	52 464	-8.2
Exports	68 793	64 252	-6.6
Net trade	11 667	11 789	1.0
Apparent consumption	90 666	87 511	-3.5

Source: UNECE/FAO TIMBER database, 2009.

### 8.2.2 Paper production decreases in all sectors except sanitary and household papers

Production of paper and paperboard by CEPI countries fell below 100 million tons for the first time since 2005 and was at its lowest since 2003. The number of mills in production has fallen from 1,135 in 2007 to 1,080 in 2008. With paper and board production capacity

standing at 109 million tons (-1.5% on 2007) this means that the operating rate for 2008 was 90.9%, which is 2.3 points lower than in 2007. By the end of the first quarter of 2009, CEPI member countries of Europe had experienced a 16.8% decline in total paper and board production on a year-over-year basis.



Source: Stora Enso, 2007.

Total paper deliveries to domestic and export markets by CEPI countries fell by 3.8% in 2008 to 99.2 million tons. Of these deliveries, exports to non-CEPI countries accounted for 17.1%. Exports to outside the CEPI area decreased by 3.9% at 17 million tons. Export shipments to European countries who are not members of CEPI fell by 2.3% to 6.2 million tons and accounted for 36.5% of all exports (38.7% in 2007). Deliveries to Asian markets represented a further 27.6% of exports (4.7 million tons), an increase of just 0.1% compared to 2007. Deliveries to North America continued to decrease (-19.7%) and represented 12.4% of total exports compared with 18.5% in 2004.

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

Woodpulp production declined by 3.9% in 2008 for Europe as a whole (table 8.2.2). Pulp production in CEPI countries fell by 4.6% in 2008, and total output of both integrated and market pulp was 41.9 million tons. Exports of pulp to countries outside CEPI were 2.1 million tons (+2.6%), with Asia representing the main destination (62.6%).

Overall production of chemical pulp in CEPI countries fell by 2.9% to 27.5 million tons in 2008. Production of sulphite pulp fell by 4.8% to 2.2 million tons, while output of sulphate pulp fell by 2.7% to 25.3 million tons. Mechanical and semi-chemical pulp output decreased to 13.5 million tons (-8.7%), the lowest annual output since 1996. Market pulp

production for 2008 was 13.8 million tons, virtually unchanged from 2007. Reflecting closures and downtime, pulp production capacity fell to 46.1 million tons (-3.4%) resulting in an operating rate of 90.8%, 1.2 points lower than in 2007.

TABLE 8.2.2  
Woodpulp balance in Europe, 2007-2008  
(1,000 m.t.)

	2007	2008	Change %
Europe			
Production	51 020	49 015	-3.9
Imports	19 919	19 641	-1.4
Exports	12 909	12 533	-2.9
Net trade	-7 009	-7 107	1.3
Apparent consumption	58 029	56 122	-3.3
Of which: EU27			
Production	48 104	46 275	-3.8
Imports	18 562	18 287	-1.5
Exports	12 122	11 751	-3.1
Net trade	-6 440	-6 536	1.5
Apparent consumption	54 544	52 811	-3.2

Source: UNECE/FAO TIMBER database, 2009.

Pulp consumption in CEPI countries declined by 4.2% to 48.5 million tons in 2008. Imports of pulp fell to 7.8 million tons (-3.8%), with primary sources remaining Latin America (55.3%) and North America (34.9%). Consumption of mechanical and semi-chemical pulp decreased to 13.6 million tons (-8.3%) while consumption of chemical pulp was 33.4 million tons, a decrease of 2.6% over 2007. Among CEPI countries, output of pulp fell by 18.3% on a year-over-year basis from the first quarter of 2008 to the first quarter of 2009, reaching the lowest quarterly output figures since 2001.

Pulpwood prices in Europe reportedly declined over the past year, along with a more generalized decline in timber and sawlog prices (Wood Resources International, 2009). Meanwhile, the Government of Russia discussed a one-year delay in the planned escalation of the roundwood export tax. The roundwood tax has already resulted in higher wood costs for European pulp and paper producers – particularly in northern European countries – and decreasing wood-trade volumes. It could ultimately have effects similar to an export ban, and is therefore a subject of serious concern for the European industry.

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

Eastern Europe's pulp and paper industry still enjoys some cost advantages, but cost trends are moving rapidly in favour of western EU Member States. Eastern European countries are now, for the most part, members of the EU, which necessitates compliance with all EU regulations, and in particular for the pulp and paper industry this has resulted in the rapid erosion of some regional cost advantages. Hence, some EU policies are seen more as a hindrance than as opportunity within the region. Eastern Europe also has ageing forests, relatively high forest inventories and expanding areas of forested land that are being less utilized for raw-material harvest. The forests are under relatively high risk of damage due to probable consequences of climate change.

Storm damage is among those forest threats that can rapidly change business opportunities in forestry and forest industries, but market shifts can just as rapidly affect competitiveness. Eastern Europe experienced relatively calm weather in the period from 2008 through the first half of 2009, avoiding major forest damage, although wood fibre availability in early 2008 was still influenced by salvaging of wood from earlier storms. However, significantly lower production of sawnwood and sawmill chips in 2008, together with less willingness of forest owners to harvest wood at lower prices, created a more difficult supply situation for wood-fibre consumers, including pulp manufacturers. Thus, a relative surplus of wood-fibre raw material quickly disappeared during the winter of 2008 and spring of 2009.

EU policies in areas such as energy production, labour protection and environmental issues are seen as creating a difficult situation for pulp and paper producers of Europe in general, while the EU market is relatively liberal and open to competing producers from other regions that have clearly different policy standards for energy, labour and the environment. While EU protectionism is not a good solution, the situation calls for a thorough and cross-sectoral approach, taking all consequences into account. Among key policies that are clearly affecting pulp and paper competitiveness in the UNECE region are the "green energy production" policies in member countries. Heavily subsidized green energy production allows energy producers in some cases to pay higher prices for wood than pulp producers can afford. Significantly lower added value and employment effects of green energy production compared with pulp and paper production are obvious, and under current economic conditions, production of pulp and paper in the entire EU region is significantly threatened by costly government policies.

#### **8.2.5 EU political developments: Energy & Climate Change Package, illegal logging, end of "waste" paper classification, and water issues**

At the EU level, the year 2008 was dominated by important political discussions about climate change and bioenergy under the Energy & Climate Change Package, issued by the European Commission (EC) in January 2008. The package sought to reduce EU greenhouse gases by at least 20% and increase to 20% the share of renewable energy in total energy consumption by 2020, as agreed by EU leaders in March 2007. Discussions have been ongoing since then, particularly on the ways to raise the various targets and the burden sharing, but also on the effects on the industry sectors and particularly the energy-intensive sectors, such as the pulp and paper industry. Much will depend on the discussions and a possible agreement at the Copenhagen Climate Change summit to be held in December 2009.

Legislation was developed during the spring of 2009 to fight illegal logging. It will most probably include more restrictive requirements, and is expected to be adopted in 2010 (see chapter 2 for more information).

The EC, while revising the Waste Framework Directive, has been working on the status of recovered paper to be reclassified as secondary material instead of waste. This will benefit the industry in many ways, particularly by reducing administrative and permit costs, and by supporting work for quality management which the supply chain would more readily understand if the material is no longer classified as "waste". Many initiatives also indicate that water is going to be the next major issue on the EU policy agenda.

#### **8.2.6 European paper industry calls on European Commission to take leadership or risk jeopardizing the industry's future**

On 29 June 2009, European leaders of the pulp and paper industry launched a manifesto for competitiveness and employment in Brussels. They sounded a stark warning that unless solutions are found quickly to respond to the economic crisis and unless a more rational policy making approach is introduced, the competitive transformation of their industry, and indeed all European industries, will not be sustained.

The key areas in which the industry urged the EC to act include: ensuring a better balance in policy making between advocates of environmental, competitiveness and employment interests; allowing Europe to compete with lower energy cost competitors; creating opportunities in the EU Emission Trading System; boosting the availability of raw materials and market access; applying flexibility to competition rules to facilitate restructuring; fighting protectionism in competing countries; and turning innovation into a reality.

### 8.2.7 Global forest products industry CEOs call for a level playing field to reboot economy

In May 2009, global leaders of the forest products industry meeting within the International Council of Forest & Paper Associations (ICFPA) in London sounded a warning that Governments' efforts to offset the environmental challenges and economic crisis facing the world today may have the perverse impact of exacerbating the problems. According to the ICFPA, Government subsidies risk creating deep distortions in competition and inhibiting investment flows needed for rebooting the economy. Protectionism and a focus on regional economics will lead to reduced global trade and may deepen the current crisis. Looking to the longer term, CEOs were optimistic that the industry would adapt. At a moment when people of all nations are questioning the economic and environmental direction of the global business model, 20 CEOs from the forest industries of 12 countries called for innovation in business models to adapt to changing environments (ICFPA, 2009).

The forest products industry model may hold answers to many of the questions. Increasingly, markets are demanding products that respect nature, while meeting human needs and earth's carrying capacity. Only industries that live within nature's cycles will prosper in the future. The participants pointed to a set of lessons that have emerged from the forest industry model (CEPI, 2009):

- Sustainable production contributes to prosperity in rural areas;
- Economic activities that are based on sustainable forest management will mitigate deforestation and forest degradation;
- Industrial processes that rely on nature's carbon cycle will help reduce greenhouse gas emissions;
- Use of renewable materials that are recyclable and return to nature will meet society's needs within nature's carrying capacity.

The CEOs noted that the forest sector itself has not yet reached its full potential in terms of providing a model of sustainable production and consumption, but also felt confident that the future of all industrial production will need to be based on the models that are evolving in their industry.

## 8.3 CIS subregion, focusing on Russia

### 8.3.1 Russia and the CIS subregion experience slower growth

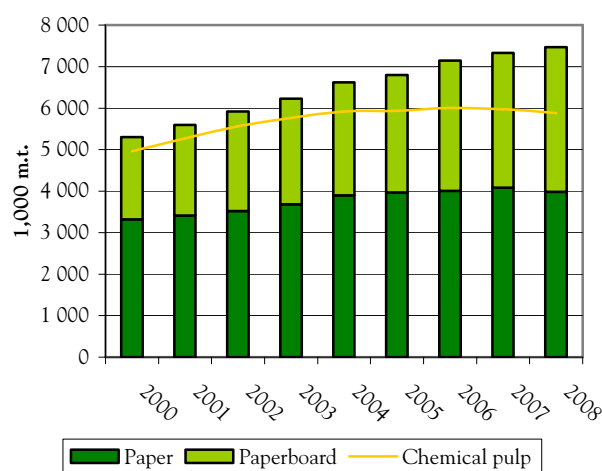
Growth in Russia's output of pulp, paper and paperboard has been much slower in recent years (graph 8.3.1). Both China and Finland have demonstrated more rapid growth in recent years, based in large part on expanded wood-raw-material imports from Russia. Growth rates have, however, moderated over the past year. Between 2007 and 2008, in Russia only paperboard production increased (by 5.6%), while annual production levels declined for the first time in a decade for both paper (-2.5%) and chemical woodpulp (-1.6%). Russia's total production of paper, paperboard and market pulp edged upward (by 0.2%) to 9.75 million m.t. in 2008, the slowest aggregate growth in more than a decade.

### 8.3.2 CIS and Russian balance of trade

Exports of paper and paperboard, as well as woodpulp, increased in 2008 for Russia and the CIS region as a whole (table 8.3.1). Russia has been running a negative balance in the value of net trade in paper and paperboard since 2001, and in 2008 the trade deficit was estimated at \$2.1 billion (up from \$1.6 billion in 2007). The value of Russia's pulp exports greatly exceeds the value of imports, but a deficit has nevertheless arisen since 2006 in Russia's total pulp and paper trade balance (reaching a net deficit of \$1.0 billion in 2008).

GRAPH 8.3.1

Production of pulp, paper and paperboard in the Russian Federation, 2000-2008



Sources: Federal State Statistics Service, Goskomstat, PPB-express, and author's data interpretation, 2009.

TABLE 8.3.1

Paper, paperboard and woodpulp balance in the CIS,  
2007-2008  
(1,000 m.t.)

Paper and paperboard	2007	2008	Change %
Production	9 023	9 098	0.8
Imports	2 798	2 797	0.0
Exports	2 821	2 942	4.3
Net trade	23	146	538
Apparent consumption	9 000	8 952	-0.5
<b>Woodpulp</b>			
Production	7 097	7 006	-1.3
Imports	250	222	-11.1
Exports	1 900	2 036	7.2
Net trade	1 649	1 813	9.9
Apparent consumption	5 447	5 193	-4.7

Source: UNECE/FAO TIMBER database, 2009.

The recent global economic crisis has had a large impact on Russia's forest sector. In the period from late 2008 to early 2009, a dramatic change occurred both in the volume of exports and in domestic shipments. The slump in industrial production in countries that are importers of Russian roundwood, coupled with increased duties on roundwood exports, resulted in a decrease in roundwood exports, mainly to Finland. Falling sales of consumer goods in the US and western Europe led to decreasing growth of industrial output in China, and consequently decreasing growth in consumption of packaging paper and paperboard, with a reduction in kraft-liner exports from Russia to China. The global surge in market pulp inventories resulted in falling global market pulp prices and simultaneous drastic shrinkage of market pulp exports from Russia to China. The recent economic crisis has actually produced a stoppage of a number of so-called priority investment projects developed in recent years that were oriented towards expanded processing of wood in Russia.

At the same time, because of a significant downturn in the exchange value of the ruble, as related to the euro and US dollar from August of 2008 to March of 2009, the cost competitiveness of a number of Russian paper products has likely increased (e.g. office paper, newsprint) both in internal and external markets. Since March, the ruble exchange value has increased modestly, but by June 2009 still remained at least 20% lower than a year earlier (in terms of the euro and dollar).

### 8.3.3 Russian policy on roundwood and sustainable forest management

Whereas Europe is discussing problems of wood mobilization, Russia needs new enterprises such as pulp and paper for integrated in-depth processing of wood to sustain forest management in the regions where the resources are obtained. The growing stock of timber in Russia amounts to 89.3 billion m<sup>3</sup>, with annual growth exceeding 900 million m<sup>3</sup>. The harvest potential of accessible forest area is about 540 million m<sup>3</sup> a year, but felling volume has never been above 300-350 million m<sup>3</sup>. In the recession of the 1990s, it dropped, for instance, to a low of 75 million m<sup>3</sup> in 1998. Harvest was 135 million m<sup>3</sup> in 2007, and 105 million m<sup>3</sup> in 2008 (a 12% decline). Roundwood exports accounted for about 35% of the harvest in 2008. Thus, no more than about 20% of Russia's allowable cut is currently being used. Several obstacles exist to increasing the harvest level, including accessibility of the forest areas.

The forests of Russia represent over 20% of the global forest resource, larger than any other Country's forests, but they are not in full use. At present, the entire Russian pulp and paper industry is within the private sector, while Russian forests generally remain State property, with forest management implemented on a rental basis supported by local industry. Implementation of a major programme to increase forest growth through intensified forest management would contribute, apart from climate change mitigation, to employment and continued economic stability in Russia. This would require major investment (billions of dollars) in Russian forest industry development as well as greater attention from the world's financial institutions.

In the context of the global atmospheric carbon balance and mitigation of greenhouse gas emissions, it also makes far more sense to process wood as close as possible to the forest source, rather than export roundwood from Russia, because transport costs and power consumed to transport the wood are reduced. Consequently, Russian policy, such as the export tax on roundwood, seeks to channel forest enterprise development to Russia.

Unfortunately, the combined effects of the roundwood export tax and global economic downturn have had a very negative economic impact on timber-exporting regions of Russia, leading to discussions of postponing export tax increases, or cancelling the export tax for companies that construct processing facilities in Russia.

## 8.4 North America subregion

### 8.4.1 Prices retreat from 2008 peaks as demand and production decline

North American paper and paperboard production and consumption declined in 2008, while exports and net trade increased. Combined US and Canadian production of paper and board declined by 5.3% in 2008 (table 8.4.1), while separately US output declined by 4.3% and Canadian output declined by 9%. However, generally North American paper and board production plunged further in the second half of 2008 and early 2009, with US output down by 17% in the first five months of 2009 relative to the same period in the previous year (AF&PA). It can be noted that this year-over-year percentage decline was almost identical to the year-over-year decline in production for CEPI member countries of Europe as of the first quarter of 2009 (CEPI).

US price indices for paper, paperboard and woodpulp all peaked in the third quarter of 2008, and then retreated from 2008 peaks in the fourth quarter of 2008 and first half of 2009 (graph 8.4.1). The data in the graph of US price indices extend only to May of 2009, but in June woodpulp prices were reportedly levelling out and actually beginning to increase, according to some industry sources, while some recovered paper prices also increased modestly after bottoming out earlier in the year. Prices continued to decline for many commodities, but at a slower pace in many cases. Thus, it appeared that demand was beginning to stabilize at lower levels by mid-year, at least for pulp and recovered paper, although pulp, paper and board prices in general remained well below peak levels of the preceding year.

TABLE 8.4.1

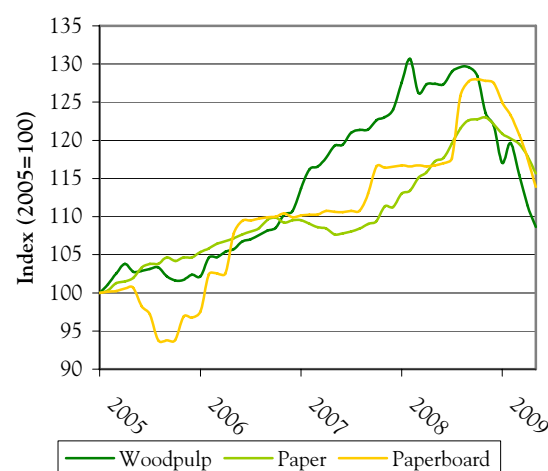
Paper, paperboard and woodpulp balance in North America, 2007-2008  
(1,000 m.t.)

Paper and paperboard	2007	2008	Change %
Production	101 283	95 951	-5.3
Imports	17 288	15 694	-9.2
Exports	22 384	22 617	1.0
Net trade	5 096	6 923	35.9
Apparent consumption	96 187	89 028	-7.4
Woodpulp			
Production	78'147	73'328	-6.2
Imports	6'870	6'008	-12.6
Exports	16'816	16'671	-0.9
Net trade	9'946	10'663	7.2
Apparent consumption	68'201	62'664	-8.1

Source: UNECE/FAO TIMBER database, 2009.

GRAPH 8.4.1

US monthly price indices for woodpulp, paper and paperboard, 2005-2009



Source: US Department of Labor, Bureau of Labor Statistics, Producer Price Indices, 2009.

### 8.4.2 US and Canadian net trade continues to reflect shift in currency values

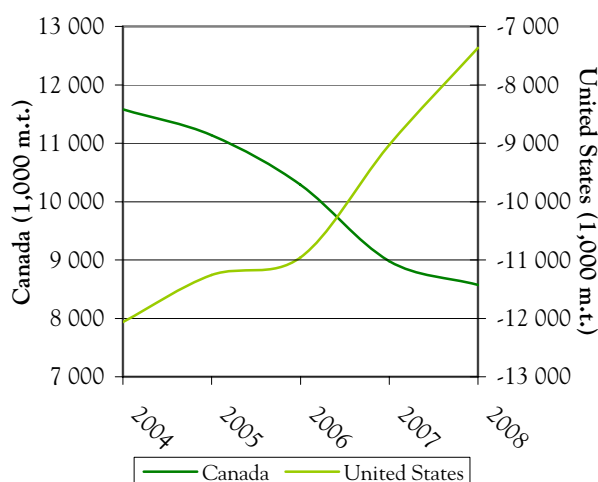
Net trade tonnage (exports minus imports) continues to reflect the shift in currency values. The Canadian dollar gained value in recent years relative to the US dollar as crude oil prices increased (Canada is the leading source of US crude oil imports). Although Canada continues to be a large net exporter of graphic papers and the US a large net importer, Canadian net exports of graphic papers declined by 3 million m.t. from 2004 to 2008, while US net exports increased by nearly 5 million m.t. over the same period (graph 8.4.2). However, despite lower tonnage the US dollar value of Canada's graphic paper exports actually increased in 2008 (by 9%).



Source: K. Kadam, National Renewable Energy Laboratory, 2009.

GRAPH 8.4.2

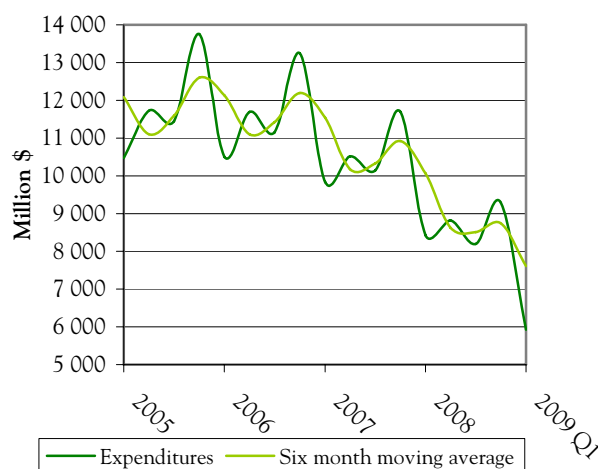
Canadian and US net trade in graphic paper,  
2004-2008



Source: UNECE/FAO TIMBER database, 2009.

GRAPH 8.4.3

US quarterly newspaper print advertising expenditures,  
2005-2009



Source: Newspaper Association of America, 2009.

### 8.4.3 Graphic papers lead the downturn

The downward spiral of newsprint production and consumption in North America accelerated in 2008 and 2009. Newspaper publishers are the primary consumers of newsprint in North America, and advertising expenditures are their primary source of revenue. Print advertising expenditures at US newspapers have declined in recent years, a trend that accelerated as the global financial crisis unfolded (graph 8.4.3). In the first quarter of 2009 these expenditures were 30% lower than in the first quarter of 2008 (Newspaper Association of America, 2009). Rapid deterioration of newspaper advertising over the past year is attributable largely to declines in advertising for automobiles, transportation, travel, and consumer goods, as consumer credit, consumer spending and travel were deeply affected by the financial crisis.

Consequently, North American newsprint demand and output in the first four months of 2009 declined similarly by about one third relative to the same period in 2008 (Pulp and Paper Products Council, 2009). US newsprint capacity had already declined by about one third to 4.5 million m.t. in 2008 after reaching an all-time high of 6.8 million m.t. in 2000 (AF&PA, 2009a). Thus, in early 2009, newsprint production was running at less than half its historical peak level of a decade ago. The secular decline of North American newsprint demand is associated with declining newspaper circulation and a structural shift in advertising expenditures from newspapers to electronic media. The publishers of several large North American newspapers have declared bankruptcy in the past year.

Printing and writing paper demand also experienced significant deterioration in North America in 2008-2009. According to UNECE data, total North American (US and Canadian) graphic paper consumption declined in 2008 by 12% relative to 2007, but the decline in total US printing and writing paper demand accelerated to double that rate on a year-over-year basis by early 2009. According to the American Forest & Paper Association's March 2009 Printing-Writing Paper Report, total US printing and writing paper shipments to domestic and export markets from January through March of 2009 were 22% lower than in the same period of 2008, while US domestic purchases were similarly down by 24% (AF&PA, 2009b). Larger percentage declines (over 30% on average) occurred in coated paper and uncoated mechanical paper demand (associated with declining print advertising expenditures), while a significant but smaller percentage decline (16%) occurred in uncoated freesheet paper demand (AF&PA, 2009b).

Apparent consumption of packaging paper and board in North America declined by 5.6% in 2008 relative to 2007, while production declined by 4%. The decline in production was greater for Canada (down 7.4%) than the US (down 3.7%). The decline accelerated in the second half of 2008 and into early 2009. According to the American Forest & Paper Association's May, 2009 Paperboard Report, total US paperboard production was down by 14% in May, 2009 compared to May, 2008 (AF&PA, 2009b). By contrast, North American consumption of sanitary and household paper was much less affected by the overall economic downturn, declining by just 0.9% from 2007 to 2008.

Apparent consumption of all paper and paperboard in North America declined by 7.4% (7.2 million m.t.) in 2008 relative to 2007, and the decline accelerated in late 2008 and early 2009. Monthly data on production and demand through May of 2009 suggest that the decline for 2009 will likely be larger than the decline in 2008, perhaps twice as large, unless markets improve substantially in the second half of the year. Stabilization and modest increases in prices as of June 2009 suggest that the market downturn may be nearing bottom.

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

North American production of woodpulp declined by 6.2% from 2007 to 2008 (down by 9.2% in Canada and 4.9% in the US) according to UNECE data. Exports from the US actually increased by 14%, to 7.1 million m.t., while Canadian exports declined by 10% to 9.6 million m.t., a trend driven in part by relative currency values. From 2004 to 2008 US pulp production declined by 1.6 million m.t. while Canadian pulp output declined by 6.0 million m.t.



Source: W. Gretz, National Renewable Energy Laboratory, 2009.

North American pulpwood supply had been negatively impacted since 2006 by the housing downturn and lower sawnwood and plywood production, which reduced supplies of chips from sawmills and plywood mills, but recent declines in pulp output and fibre demand have overshadowed the market. Thus, the latest pulpwood price cycle generally peaked in North America in the second half of 2008 in most US regions (or earlier in the year in Canada). By May of 2009 US delivered pulpwood prices had dropped by more than 10% from the peak levels of October to November 2008 (according to the US Bureau of Labor Statistics, Pulpwood Producer Price Index) (US Bureau of Labor Statistics, 2009).

US exports of recovered paper edged upward in 2008 to nearly 18 million m.t., but the recovered paper export market was in transition over the year. Exports were growing rapidly in the first quarter, primarily driven by booming exports to China. The booming Asian demand contributed to substantially higher US prices for recovered paper commodities in 2007-2008 (graph 8.4.4), but by the end of 2008, prices had collapsed along with overall paper and board demand. Whereas the year began with Asian export demand pushing prices to near historical peaks, the year ended with bargain prices sustaining US export volume to Asia. The general decline in US consumption of paper and board was also beginning to affect recovery volumes, so supply was beginning to tighten and prices appeared to be stabilizing (at lower levels) in early 2009.

GRAPH 8.4.4

US price index for recovered paper, 2005-2009



Note: Recovered paper price for old corrugated containers (OCC).

Source: US Department of Labor, Bureau of Labor Statistics, Producer Price Indices, 2008.

#### 8.4.5 Energy and climate policies gain attention

Energy and climate policies gained attention for the pulp and paper industry in North America in the form of US alternative fuel tax credits and renewable fuel standards, and Canadian energy and environmental improvement assistance programmes.

US kraft pulp producers were taking advantage of a temporary alternative fuels tax credit that was set to expire on 31 December 2009. Black liquor, combustible spent pulping liquor containing wood residuals from kraft pulping normally burned in the kraft chemical recovery process, became qualified for a tax credit under the US Tax Code. The tax credit law was passed by the US Congress several years earlier, originally as part of the

2005 highway bill, which provided tax credits for a range of alternative fuels, including liquefied petroleum gas, compressed or liquefied natural gas, liquefied hydrogen, and liquid fuel from coal, as well as biomass-based fuels (but not ethanol, methanol, or biodiesel, which have separate tax provisions). The tax credit was set at 50 cents per gallon of gasoline equivalent energy, which is much less per gallon of black liquor because of lower energy content than gasoline. In June, two high-ranking US senators proposed legislation that would end the tax credit for fuel derived from production of paper or woodpulp (including lignin, wood residues, or spent pulping liquors), claiming that it was not intended for that purpose. But in the meantime the tax credit remained available to kraft pulp producers who utilize black liquor for energy.

Separately, the US Energy Independence and Security Act of 2007 introduced the US Renewable Fuel Standard, which mandated expanded production within the next 15 years of “advanced biofuels”, meaning, specifically, fuel made from cellulosic biomass (such as wood or agricultural biomass). The concept of integrated forest biorefineries to produce cellulosic biofuels is also being explored at several pulp mill locations in the US. However, as the energy bill included provisions that disqualified biomass from public forest lands and from naturally regenerated forests (which collectively are the majority of forest lands in the US), so the potential impact in terms of future competition for pulpwood resources remains uncertain.

Meanwhile, in June of 2009, the Government of Canada announced its “Green Transformation Program” that will reportedly provide funds of up to \$1 billion over the next three years for capital expenditures to improve energy efficiency or environmental performance at any pulp or paper mill in Canada. Canada is also providing \$170 million under its Economic Action Plan to help companies develop new products and processes, and has provided the \$1 billion Community Adjustment Fund and \$1 billion Community Development Trust to help communities mitigate effects of economic restructuring during the current economic recession.

The current economic crisis has focused attention on those energy and environmental policies that affect the pulp and paper industry, whether by considering the impact of the crisis on the rationale for Russia’s export tax on roundwood, proposals for carbon credits, delayed introduction of emission limits in Europe, or effects of energy and environmental policies in North America.

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# Forest Products

## Annual Market Review



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Geneva Timber and Forest Study Paper 24

# FOREST PRODUCTS ANNUAL MARKET REVIEW 2008-2009



UNITED NATIONS  
New York and Geneva, 2009

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Please note that the Timber Bulletin series was discontinued in 2005. The present publication was issued under the Geneva Timber and Forest Study Paper series starting in 2006.

## ABSTRACT

The UNECE/FAO *Forest Products Annual Market Review, 2008-2009* 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 a description of government and industry policies affecting forest products markets. After a description of the economic situation and construction-related demand in the region, five chapters based on annual country-supplied statistics, describe: 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 and tropical timber. A new chapter is on forest sector carbon markets. 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, hardwood, lumber, wood-based panels, particle board, fiberboard, fibreboard, OSB, MDF, plywood, paperboard, cardboard, woodpulp, pulpwood, sawlogs, pulplogs, roundwood, industrial roundwood, value-added, wood energy, bioenergy, biomass, fuelwood, certified forest products and carbon.

ECE/TIM/SP/24
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UNITED NATIONS PUBLICATIONS
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Sales No.XX.XX.XX.XX
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ISBN XX-XXXXXX-X
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ISSN XXXX-XXXX
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