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## ***We Need Your Help***

***By Pat McCarthy, Director***

Since its establishment in 2000, CPBIS, the Center for Paper Business and Industry Studies, has served as a knowledge center for the pulp and paper industry and associated stakeholders. As an Industry Center, CPBIS connects with industry, its suppliers, analysts, and other researchers through a portfolio of knowledge products including the monthly newsletter, scholarly research, industry reports, new industry datasets from various sources and industry presentations.

CPBIS is committed to maintaining these activities and to expanding its knowledge products to further serve the industry. To ensure that CPBIS can continue to provide the high value it offers to the industry and its stakeholders, we seek your input.

In order to help defray our increasing costs, we are exploring alternative pricing structures for our products. One structure would include a subscription option for the Newsletter at a nominal \$20 annual cost to the subscriber. Your input on the following question would be very helpful in helping us develop a Center strategy that will ensure the highest quality knowledge products for you:

How likely is it that you would continue your subscription to the CPBIS Newsletter for an annual \$20 price?

[Please click on the link below to answer the question:]

<http://www.surveymonkey.com/s/H2HKX93>

## ***Forecasting Paper Output: A New Report from CPBIS***

Dr. Patrick McCarthy, Professor of Economics at the Georgia Institute of Technology and Director of CPBIS, has just completed an in-depth analysis of how paper industry output varies over time. The results are embodied in a new report entitled “The Effect of GDP

on US Pulp and Paper Output: A Time Series Analysis.”

Long-time followers of paper industry statistics will remember that, not so long ago, US paper consumption increased in lockstep with increases in gross domestic product; the ratio of per capita consumption to GDP was nearly constant for many years. This changed in the 1990s, when the ratio began to fall. GDP, on its own, ceased to be a reliable predictor of the industry’s output; other factors were becoming important.

Phenomena such as this tend to attract the attention of economists, and Professor McCarthy was no exception. He wondered how one could go about predicting paper industry output now that the simple historical relationship with GDP had broken down. His response was to conduct a sophisticated statistical analysis that resulted in a model incorporating not only the effect of GDP, but also the combined effects of other, unspecified factors.

The model combines historical GDP data, Bloomberg GDP forecasts and sector-by-sector industry output data to enable near-term forecasts of future output of (and, presumably, demand for) each of the eleven product classes tracked by the Federal Reserve Board. This has significant implications for managers in the paper industry who are required to make decisions that will determine future production levels. In the past, one could simply use the “rule of thumb” that demand could be expected to match the expected change in GDP. As illustrated in the report, such a procedure could result in serious errors that can be avoided by using the new model to make more accurate predictions.

The report is now available for purchase at <http://www.cpbis.gatech.edu/research/projects-and-final-reports>

## **Trend Indicators from Industry Intelligence Inc.**

[Industry Intelligence Inc.](http://www.industryintel.com) has provided market intelligence to more than 600 companies worldwide since it began as Forestweb in 1999. Industry Intelligence delivers a daily report featuring news of the paper and forest products industries. For your subscription visit: <http://www.industryintel.com>

Below is a selection of recent headlines chosen to mirror significant trends in and around the paper and forest products industries.

### **March 19 – 25**

*Print advertising revenues drop to lowest point since 1982*

In 2012, U.S. print advertising fell by US\$1.5 billion to hit a new low that hasn't been seen since 1982, according to Pew Research Center's annual State of the Media 2013 report. Furthermore, the Pew study showed that in 2012, newspaper employment fell 30%.

*China becomes world's largest viscose fiber producer, accounts for roughly 62% of global total in 2012 with 2,588 kilotons produced, records CAGR of 12.1% from 2006-2012; Aditya Birla ranks as world's largest manufacturer with 800,000 tonnes/year capacity*

As a result of high labor costs and strict environmental requirements, Europe, the United States and other developed countries have transferred viscose fiber production to the Asia-Pacific region. Currently about 80% of the global viscose fiber output comes from the developing countries in the region.

*FPInnovations welcomes Canada's budget allocation of C\$92M for forest sector in 2014-15, says funding recognizes forestry R&D as 'vital engine of growth' for country's economy*

Pierre Lapointe, President and CEO of FPInnovations said "Canada can point to innovations such as award-winning cellulose nanocrystal research, multi-storey wooden buildings, and cellulose filaments as clear examples of recent developments. Today's federal budget, earmarking \$92 million over two years starting in 2014-15 for the forest sector, ensures that we continue to build on these world leading successes."

### **March 12 –18**

*Domtar installs commercial-scale lignin separation plant at its Plymouth, North Carolina, mill; BioChoice lignin capacity totals 75 tons/day, will be used as biobased alternative to petroleum, other fossil fuels in resins, fuels, thermoplastics*

"The possibilities for making a real difference in terms of offering manufacturers a bio-based alternative to the use of petro-chemicals is truly exciting," said Hasan Jameel, a

professor in North Carolina State University's Department of Forest Biomaterials.

*Resolute Forest Products to indefinitely idle 215,000 tonnes/year newsprint machine at its paper mill in Calhoun, Tennessee, due to decreased demand, high operating costs; move will affect 150 positions*

The mill will continue to operate two specialty paper machines and a pulp dryer.

*Syktvykar Tissue Group orders tissue line for greenfield site in Semibratovo, Russia; the new line is set for mid-2014 startup, includes a 30,000 tonnes/year tissue machine capable of producing toilet tissue, napkin and towel grades*

The new line will have a width of 2.7 m and an operating speed of 2,000 m/min and it will add another 30,000 tonnes per year of bathroom tissue, napkin and towel grades to the company's existing production.

*Fortress Paper aims to focus more on dissolving pulp after sale of Germany-based wallpaper base producer Dresden, says CEO, noting upcoming conversion of Lebel-sur-Quévillon, Quebec, pulp mill, unwavering confidence in dissolving pulp's future*

Fortress expects global population growth will push up the price of food to an extent that many cotton farmers will switch to food crops - boosting the demand for viscose and rayon as alternatives to cotton.

### **March 5 –11**

*Cascades Tissue Group announces that its Cascades Antibacterial paper towel secures '4-Star' Environmental Leader Technology Review Score*

Unlike ordinary paper towels, it almost instantly kills over 99.99 percent of harmful bacteria.

*IP named as one of World's Most Ethical Companies by The Ethisphere Institute for seventh straight year, judged on elements including codes of ethics, investment in sustainable business practices*

Ethisphere reviewed nominations from companies in more than 100 countries and 36 industries.

*SCA recognized as one of 2013 World's Most Ethical Companies by Ethisphere for sixth consecutive year, awarded for implementing and maintaining upright business practices that help company and raise bar for industry*

The Ethisphere web site indicates that Stora Enso and Weyerhaeuser also made the list.

*Paper and paperboard production for CEPI member countries in 2012 slips by 1.7% year-over-year to 92 million tonnes, preliminary results find; closures amount to capacity loss of 2 million tonnes compared with 1 million tonnes in new capacity*

The Confederation of European Paper Industries reports that consumption of graphic paper grades fell by 5%-5.5%, marking the eighth straight year for declines due to the erosion of printing activity. However, production of packaging and tissue grades grew compared with a year ago.

*US output of paper and paperboard rises 1.4% in January year-over-year on 91.8% operating rate and 2.8% gain in paperboard production, while paper production falls 0.6%: AF&PA*

Paperboard production increased 2.8% year-over-year but paper production fell 0.6%.

#### **February 26 – March 4**

*IP named by Fortune magazine as the No. 1 most admired company in the Forest and Paper Products sector for tenth time in last eleven years, takes top spot in categories including people management, financial soundness, quality of products and services*

Out of the nine key attributes on which companies are judged International Paper took the top spot in seven of those categories within its industry.

*Several US tissue machines are ramping up after recent startups, with some of them geared toward fast-growing segment of higher-quality, private-label brands, analysts say; one forecast calls for possible tissue price pressure due to the added capacity*

North American tissue operating rates are expected to fall to 94% in 2013 from 97% in 2011 because of the anticipated 6.6% increase in North American tissue capacity during 2011 to 2013.

#### **AF&PA Statistics**

Since our last reporting of American Forest and Paper Association statistics releases, the Association has issued reports on printing and writing papers, kraft paper, paperboard, containerboard and recovered fiber. Below are the key findings:

##### **Printing and Writing**

**January:** Total shipments were down 3 percent from January 2012. Shipments of coated free sheet papers increased 5 percent compared to January 2012, the third year-over-year increase in the past four months. Uncoated free sheet papers shipments of 766,300 tons in January were 3 percent below the same period last year. Uncoated mechanical paper shipments decreased 10 percent when compared to January 2012. Shipments of coated mechanical decreased to 255,900 tons, a 9 percent decrease compared to January 2012

**December:** Total shipments decreased 9 percent from December 2011. Overall, 2012 shipments were 4.6 percent below the 2011 level. All four of the major grades posted decreases compared to last December,

with inventory levels increasing in November, led by double-digit increases in mechanical grade papers. Shipments of coated free sheet (CFS) papers were 7 percent lower than in December 2011 and were down 3 percent for the year in 2012. Year-to-date imports of CFS through November were down 12 percent compared to the 11-month period in 2011. Uncoated free sheet (UFS) paper shipments decreased 7 percent compared to December 2011. Annual purchases of UFS papers for the year were down 4 percent compared to 2011. Year-to-date UFS imports are up 4 percent in 2012 compared to same 11 months in 2011. Uncoated mechanical paper shipments decreased 27 percent when compared to December 2011, with annual shipments 17 percent below 2011 levels. Shipments of coated mechanical papers decreased 10 percent compared to December 2011 and 5 percent for the year.

**November:** Total shipments decreased 4 percent compared to November 2011. Three out of the four major printing-writing grades posted decreases, with coated free sheet (CFS) posting the only year-over-year increase. CFS shipments increased year-over-year for the sixth time in the past 12 months. Shipments increased 1 percent when compared to November 2011 to 330,800 tons, the fourth highest total in 2012. While uncoated free sheet (UFS) papers shipments decreased 2 percent compared to November 2011 to 705,500 tons, October exports increased year-over-year for the third consecutive month. Year-to-date shipments of UFS paper are down 3 percent compared to the same months in 2011. Exports of UFS increased year-over-year in October, up 15 percent. Year-to-date UFS exports are up 11 percent in 2012 compared to same 10 months in 2011. November uncoated mechanical (UM) paper shipments decreased 24 percent when compared to November 2011, the twentieth consecutive month of year-over-year decline. November shipments of coated mechanical papers decreased 5 percent compared to November 2011. Year-to-date shipments are down 5 percent compared to the same 11 months in 2011.

##### **Paperboard**

**February:** Total boxboard production decreased by 1.9 percent compared to February 2012 and decreased 5.6 percent from January. Unbleached kraft boxboard production decreased over the same month last year and decreased compared to January. Total solid bleached boxboard & liner production decreased compared to February 2012 and decreased compared

to January. The production of recycled boxboard decreased compared to February 2012 and decreased when compared to January.

**January:** Total boxboard production increased by 0.9 percent compared to January 2012 and increased 1.7 percent from December. Unbleached kraft boxboard production increased over the same month last year and increased compared to December. Total solid bleached boxboard & liner production decreased compared to January 2012 and decreased compared to December. The production of recycled boxboard increased compared to January 2012 and increased when compared to December.

**December:** Total boxboard production increased by 6.4 percent compared to December 2011 but decreased 0.4 percent from November. Unbleached kraft boxboard production increased over the same month last year and increased compared to November. Total solid bleached boxboard & liner production increased compared to December 2011 and increased compared to November. The production of Recycled Boxboard increased compared to December 2011 but decreased when compared to November.

**November:** Total boxboard production increased by 2.1 percent compared to November 2011 and increased 1.7 percent from October. Unbleached kraft boxboard production increased over the same month last year and increased compared to October. Total solid bleached boxboard & liner production increased compared to November 2011 and increased compared to October. Production of recycled boxboard increased compared to November 2011 but decreased when compared to October.

### **Containerboard**

**February:** Production fell 10.2 percent over January and 1.7 percent over February 2012. However, the month-over-month average daily production decreased just 0.5 percent. The containerboard operating rate for February 2013 lost 0.5 points over January, from 97.1 percent to 96.6 percent.

**January:** Production rose 1.7 percent over December and 3.5 percent over January 2012. The month-over-month average daily production increased 1.7 percent. The containerboard operating rate for January 2013 gained 1.3 points over December 2012, from 95.8 percent to 97.1 percent.

**December:** Production grew 1.5 percent over November and 2.3 percent over the December 2011. However, the month-over-month average daily

production decreased 1.8 percent. The containerboard operating rate lost 1.7 points over November, from 96.9 percent to 95.2 percent.

**November:** Production fell 1.5 percent over October but rose 1 percent over the November 2011. The month-over-month average daily production increased 1.7 percent. The operating rate gained 0.6 points over October, from 96.3 percent to 96.9 percent.

### **Kraft Paper**

**February:** Total shipments were 119 thousand tons, a decrease of 15 percent from January. Bleached kraft paper shipments increased year-over-year 13 percent while unbleached kraft paper shipments decreased 13 percent year-over-year. As a result, total kraft paper shipments were down slightly less than one percent compared to the first two months of 2012. Total month-end inventory decreased 3 percent to 71.3 thousand tons compared to January 2013 month-end inventories.

**January:** Total shipments were 140.5 thousand tons, an increase of 19 percent over December. Bleached kraft paper shipments increased year-over-year 17 percent, and unbleached shipments increased 7 percent year-over-year. As a result, total kraft paper shipments begin the year 9 percent higher than in 2012. Total month-end inventory decreased 14 percent to 73.5 thousand tons compared to December 2012 month-end inventories.

**December:** Total shipments were 118 thousand tons, a decrease of 12 percent compared to November. While bleached shipments increased year-over-year 22 percent, the 17 percent year-over-year decline in shipments of the larger segment - unbleached kraft paper - was sufficient to bring overall shipments down compared to 2011. Total month-end inventory increased 13 percent to 85.7 thousand tons this month compared to November 2012 month-end inventories.

### **Recovered Fiber**

**November:** Total U.S. industry consumption of recovered paper in November was 2.36 million tons, 5 percent lower than in October. Inventories increased for most grades. Year-to-date total consumption in 2012 is 4 percent lower than during the same period last year.

U.S. exports of recovered paper showed strong gains across all grades, except for high grade deinking. Corrugated exports increased to levels not seen since April 2011. Year-to-date exports

of recovered paper in 2012 are 6 percent lower than during the same period in 2011.

The complete surveys with detailed tables can be purchased by contacting Caroline Nealon ([Statistics\\_Publications@afandpa.org](mailto:Statistics_Publications@afandpa.org) or 202-463-2448).

### **Statistics Corner: Net Volume of US Growing Timber**

There is no shortage of trees in the United States. In the years between 1953 and 2007 the growth of both softwood and hardwood species has exceeded the harvest, as shown in Figures 1 and 2 below. The resulting increase in the volume of growing timber (excluding culls and dead trees) has been especially pronounced in the case of hardwoods. ■

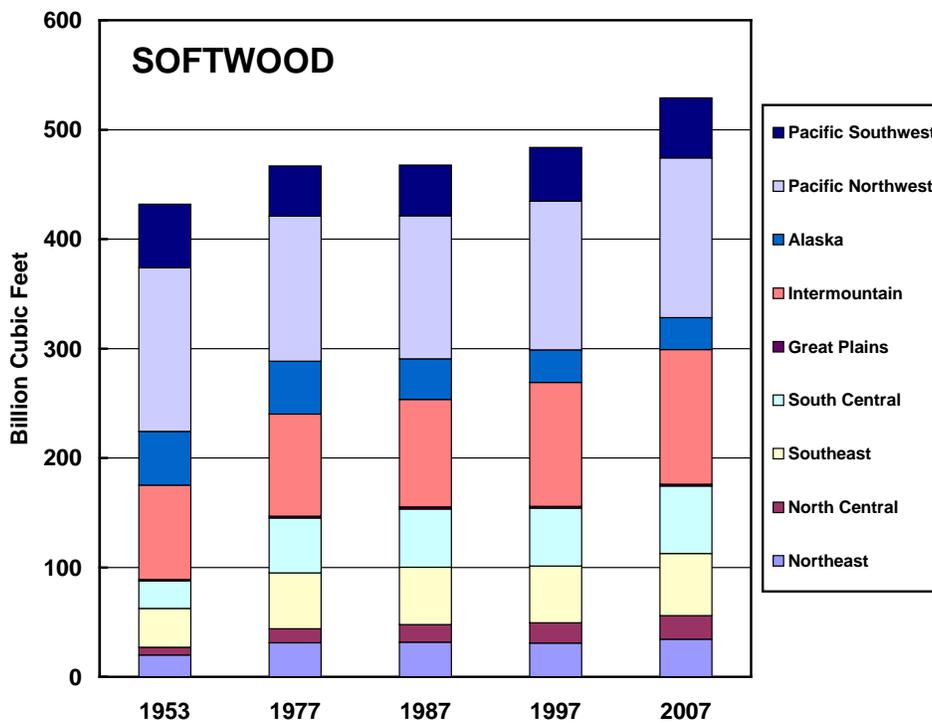


Figure 1. Net Volume of US Growing Softwoods (USDA Forest Service)

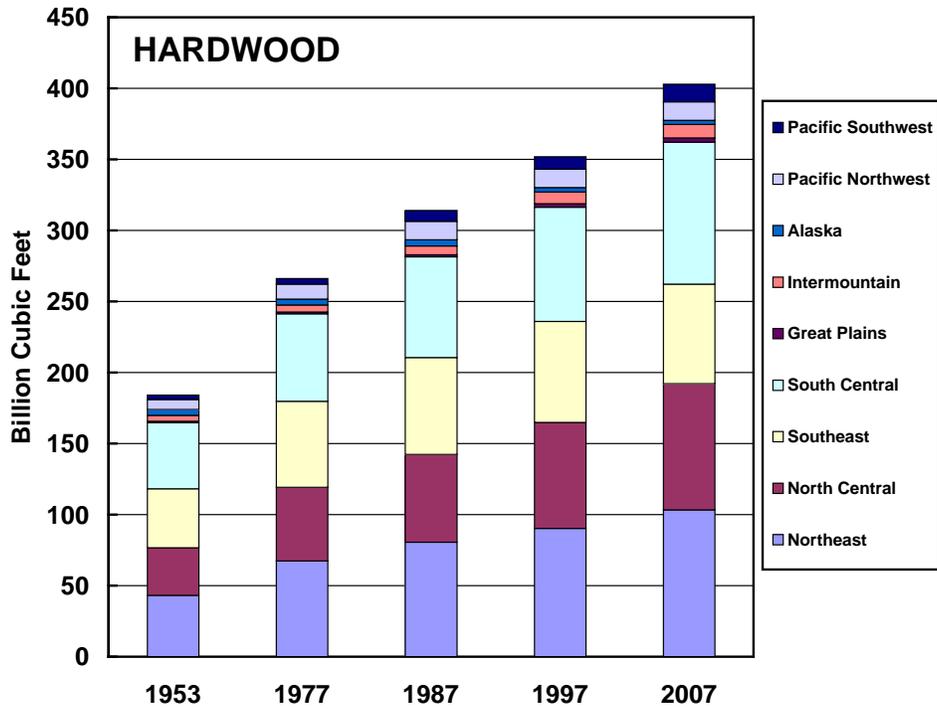


Figure 2. Net Volume of US Growing Hardwoods (*USDA Forest Service*)