

**Vol. IX, No. 7****November 19, 2009**

### ***Predicting Bankruptcy in the Pulp & Paper Industry***

North American pulp and paper companies continue suffering through decreasing shares of world market, falling demands, and the effects of technological changes. Not surprisingly, an increasing number of Pulp and Paper firms have filed for bankruptcy. Notable recent examples include AbitibiBowater, Smurfit-Stone, Chesapeake Corporation and Tembec.

In a forthcoming CPBIS working paper (*Predicting Bankruptcy in the Pulp & Paper Industry*), researchers Chun-Yu Ho, Patrick McCarthy and Yi Yang look into the determinants of bankruptcy that occurred in the pulp and paper industry during the period spanning the years from 1980 to 2006, and develop a model for predicting pulp and paper bankruptcy filings.

The paper will show first that financial ratios are useful to predict firm failure. Failed firms are smaller in asset size, less profitable, more liquidity constrained and higher in debt leverage. Using prediction models proposed in the bankruptcy literature, the authors provide leading indicators to predict financial distresses one to three years ahead of the bankruptcy. They also improve the empirical model by revising the specifications and re-estimating it with a sample of firms in the paper and pulp industry.

Predicting future potential for bankruptcy is another objective of this research. The authors apply empirical models to perform out-of-sample forecasts for four bankruptcies that occurred during the years 2007-2009, and show that one of their models correctly predicts all of them.

### ***MillsOnline Updated***

MillsOnline is a CPBIS database that allows the user to determine which pulp and paper mills are in operation today and where they are located, together with mill-specific information. The database is updated at regular intervals by CPBIS graduate research assistant Aselia Urmanbetova.

A just-completed update has included the following changes:

#38 Freshwater Pulp, Samoa, California, Status changed to "Closed (Oct09)"

#89 International Paper Co., Pineville, Louisiana, Status changed to "Closed (Oct09)"

#127 Smurfit-Stone Container Corp., Ontonagon, Michigan, Status changed to "Idle (Sep09)"

#212 International Paper Co., Albany, Oregon, Status changed to "Closed (Oct09)"

#253 International Paper Co., Franklin, Virginia, Status changed to "Closed (Oct09)"

#543 Neenah Paper, Inc., Ripon, California, Status changed to "Closed (May09)"

#762 Munksjo Paper Decor Inc., Fitchburg, Massachusetts, Status changed to "Closed (Jul09)"

#895 United States Gypsum Co., Clark, New Jersey, Status changed to "Closed (Jul09)"

#956 Bennington Paperboard Co. (The Newark Group Inc.), North Hoosick, New York, Status changed to "Closed (Apr09)"

#979 Carastar Industries, Inc., Charlotte, North Carolina, Status changed to "Closed (Mar09)"

#1005 Sonoco Products Co., Lancaster, Ohio, Status changed to "Closed (May09)"

#92 Tembec Inc., St. Francisville, Louisiana, Sold to PanAmerican Capital Group, renamed to Renew Paper (PanAmerican Capital Group), status changed to "Reopened (Jul09)"

#726 Wausau-Mosinee Paper Corp., Jay, Maine, Status changes to "Closed(May09)" and Company changed to "Formerly Wausau-Mosinee Paper Corp, Sold (Oct09) to a private party"

#777 MeadWestvaco Corp., South Lee, Massachusetts, Status changed to "Closed(Jul07)", Sold (Oct09) and renamed Onyx Specialty Papers

To access MillsOnline, just click on the map at <http://www.cpbis.gatech.edu/millsonline>. Locations of mills in that state will appear, with quick links to information about the mill and the community in which the mill operates. The data cover more than 600 U.S. mills.

## Recent Forestweb Headlines

Every week, Forestweb publishes “Newsbeat,” a news report tracking recent developments in and around the paper and forest products industries. Newsbeat is available by subscription from Forestweb. See

<http://www.forestweb.com/Corporate/index.cfm>

Below is a small sampling of headlines from recent issues, together with brief synopses.

### November 16

*Canada’s boreal forest stores nearly twice as much carbon per hectare as tropical forests, value in mitigating global warming vastly underestimated, finds new report*

Report shows that the global impact of Canada’s boreal forest, which stores nearly twice as much carbon per hectare as tropical forests, has been vastly underestimated.

*Southern Co. breaks ground on US\$500M Sacul, Texas, biomass plant that will require 1 million tons/year of forest and wood residues from 75-mile radius*

Southern Power, a Southern Company subsidiary, took a major step in building one of the nation’s largest biomass-fueled projects

### November 9

*Stora Enso, Arauco confirm construction plans for US\$2B JV pulp mill in Uruguay*

The investment is expected to have “a great impact” on the country’s economy and to generate at least 3,000 new jobs.

*Wisconsin approves nation’s largest biomass gasifier that will produce synthetic gas from wood-fed biomass to generate power at Northern States Power Company-Wisconsin’s Ashland power plant*

The Public Service Commission of Wisconsin approved a proposal to install the nation’s largest biomass gasifier, a system that will produce synthetic gas from biomass for the production of electricity in Ashland, Wisconsin.

### November 2

*Black liquor, other forest products excluded from new U.S. biomass crop assistance program*

The new list of eligible materials, posted on the USDA/FSA Web site on Oct. 28, now excludes black liquor.

*Domtar breaks ground for US\$40M bio-fueled generator at Marlboro pulp and paper mill, Bennettsville, South Carolina*

US\$40 million, 45 MW biomass fueled steam turbine generator expected to cut the mill’s annual energy costs by about \$14 million

*Global tree death patterns reveal emerging climate change risks for forests, finds U.S. Geological Survey*  
Widespread examples of drought and heat-induced tree mortality illustrate how climate can drive abrupt, broad-scale impacts on forests.

### October 26

*New version of extended black liquor tax credit may not pan out for U.S. paper firms as black liquor is not currently registered as an approved fuel*

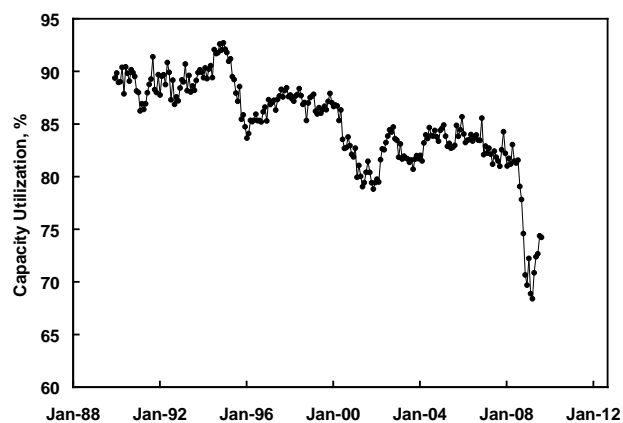
A new renewable energy tax credit last week expected to become a second multibillion-dollar windfall for the U.S. paper industry, may not be such after all, according to congressional and industry sources.

*Freshwater to permanently close its Samoa, California, pulp mill after failing to obtain federal stimulus funds to convert facility into integrated tissue plant*

Freshwater Tissue, California’s last pulp mill, was unable to obtain funds to convert the Samoa mill into an integrated, chlorine-free tissue plant.

## Statistics Corner: Capacity Utilization

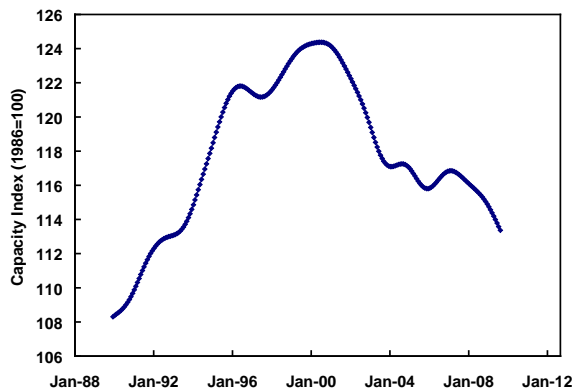
Figure 1 below shows the U.S. paper industry’s record of capacity utilization (operating rate) for the period January, 1990 through September, 2009.



**Figure 1. U.S. Paper Industry Capacity Utilization, Jan., 1990 – Sept., 2009 (Federal Reserve Board)**

The recent uptick signals a degree of recovery from the effects of the recession. It should be noted,

however, that the improvement reflects the combined effects of increased levels of paper production and decreased capacity, as shown in Figure 2.



**Figure 2. U.S. Paper Industry Production Capacity, Jan., 1990 – Sept., 2009 (Federal Reserve Board)**

Several other interesting features of Figures 1 and 2 may be noted. The period 1990 – 1994 was characterized by operating rates averaging about 89% and ongoing capacity additions. Capacity additions continued through 1995, resulting in excess capacity and a sharp drop in operating rates. In spite of this, the industry continued to add capacity during the years 1996 – 2000, albeit at a reduced rate, and operating rates stabilized at about 87% during this period. The year 2000 marked the beginning of the current era of retrenchment. Capacity additions were halted, and some capacity was taken offline as operating rates underwent a period of sharp reduction, falling to 79% at the end of 2001. A continued downward trend in capacity caused operating rates to recover and stabilize at about 83% until the beginning of the current recession in mid-2008, when operating rates underwent a precipitous drop to 68% in April of this year. At that point, as noted above, the industry experienced a sharp rise in operating rates as the combined result of recovering demand and continued reductions in capacity. ■