



Center for Paper Business and Industry Studies

Newsletter of the Center for Paper Business and Industry Studies
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Sloan Renews CPBIS Funding

We are pleased to report that the Alfred P. Sloan Foundation has awarded CPBIS a grant of \$1.3 million to help finance its continued research and educational activities for a second three-year period. CPBIS was established in October, 2000, with the aid of a \$2 million Sloan grant, together with an industry commitment of approximately \$1 million. Needless to say, CPBIS deeply appreciates the support of both the Sloan Foundation and the paper industry, and is committed to ensuring that their confidence is not misplaced.

Transform Your Management Skills

There is still time to take advantage of a unique opportunity to acquire skills that are needed to radically improve your management performance, job effectiveness, and value to your organization. CPBIS and PIMA have teamed up to create a continuing education course that draws on the resources of Georgia Tech's highly regarded DuPree College of Management and the experience of eminently successful paper industry practitioners. All this in a real-time, physical classroom environment that facilitates effective peer-to-peer interaction and provides direct access to both the business school faculty and industry experts. The course will be offered at the Institute of Paper Science and Technology on the Georgia Tech campus, beginning on Monday, February 9 and ending on Friday, February 13. For full details and registration information, please consult the following Web page: <http://www.cpbis.gatech.edu/mgtdev>

Anticipating Price Changes

In the last issue of this Newsletter, we updated readers on the CPBIS project, "Price Behavior in the Pulp and Paper Industry." As a follow-up, Professor Haizheng Li (Georgia Tech School of Economics) has provided the following information about a useful set of Web-based price forecasting tools he and his team of investigators have developed. To access them, go to

<http://www.cpbis.gatech.edu/research/projects/price/webtool/forecasting.htm>

These tools, which can be used for short-term forecasting needs such as predicting sales, inventory, and price, are secure and easy to use. A user can input data online or upload data from pre-existing files. There is no login requirement and the input data is neither seen by the research team nor saved on a server.

The first step is to decide which of the tools (labeled 1, 2 and 3) to use. In general, the first two are used for annual data. If your data exhibit neither seasonality nor an obvious upward or downward trend, you can use the first one. If your data do not have seasonality but do appear to exhibit a trend, you can use no. 2. If the data have both a trend and seasonality, the third tool is more appropriate. (Currently, the third tool can be applied only to quarterly data.) Next, you need to specify the number of time steps you want the forecast to cover, and whether you want the output in graphical form. For example, inputting 2 for quarterly data and checking the graphical output option will produce a graph that includes forecast figures for the next 2 quarters.

It is important to update your forecasts as new data become available. For instance, if you have generated a forecast for four quarters, and a new quarterly figure becomes available, you should re-forecast the next three quarters using the new data point.

Experience has shown that these simple forecasting tools work reasonably well in short-term forecasting. However, as in any forecasting work based on statistical models, it is important that you review the results in the light of your experience and expertise and make any necessary modifications. Finally, be aware of the limitations of simple models. If you need long-term forecasts based on more sophisticated models please contact Professor Li:

haizheng.li@econ.gatech.edu

Research Update: Commercialization of Forest Biotechnology

In a previous issue (Sept. 21, 2001), an article by Professor Gary Peter introduced the project, "Commercialization of Forest Biotechnology: Economic Targets for Enhanced Global Competitiveness of the U.S. Pulp and Paper Industry." Since then, Gary and his research team have made remarkable progress in unearthing answers to the following key questions

- ▶ Can forest tree biotechnology affect the cost structure of the US pulp and paper industry to make it more globally competitive?
- ▶ What changes in wood and fiber quality will reduce the cost of pulp and paper production the most?
- ▶ What biological technologies are required to change wood and fiber quality in a way that will benefit pulp and paper mills?
- ▶ Is there enough value in forest tree biotechnology for US companies to justify remaining vertically integrated?

By combining forest cost models with a linerboard mill model, the team has been able to assess the economic benefits of alternative approaches to the use of biotechnology for loblolly pine tree improvement. The results show that, at constant pulp production rate, an increase in specific gravity is the most valuable trait change for reducing the cost of pulp and linerboard production. The effect of lignin content reduction on linerboard prices is fairly small because of an increased requirement for purchased energy – the mill generates less of its own from burning lignin. However, increasing growth rate with a simultaneous decrease in lignin content or increase

in specific gravity dramatically improves the cost savings.

These results have important implications for the industry. Increasing wood specific gravity can improve a mill's year 2020 profitability by up to 25%, even after factoring in a decrease in the real price of linerboard. Improving both growth rate and specific gravity would impact the cost of linerboard production even more dramatically. Significant increases in specific gravity and growth rate increases greater than 50% can be achieved through clonal selection.

For additional information on this project, please contact one of the co-investigators:

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Distinguished Lecturers

Given the success of the 2002-2003 Distinguished Lecture Series (DLS), CPBIS, together with IPST@GT, will sponsor a new DLS, beginning on January 23, 2004. Our first Distinguished Lecturer will be Mr. Ladd Hall, vice president, Nucor Steel. Mr. Hall will present "Best Marketing Performance in the Steel Industry - Why Success Occurs." All are invited to attend the presentation at IPST at 11:00 a.m. on Jan. 23. Those unable to attend in person may view a live Webcast of the event. For information on accessing the Webcast, and for details on the entire 2004 DLS program, please visit <http://www.cpbis.gatech.edu/dls2004>

Other Upcoming Events

"Management Development for Enhanced Performance," Feb. 9, 2004. See article on p. 1.

"Project Management," the first of three PIMA-CPBIS online Webcast courses debuts on Jan. 14. For details and registration information, see <http://www.pimaweb.org/training/spring04seminar.html>

TAPPI/PIMA Student Summit, Jan 17-19, 2004, Baton Rouge, Louisiana. For details, see <http://www.tappi.org/index.asp?rc=1&pid=28317&ch=4&ip=■>