



Center for Paper Business and Industry Studies

Newsletter of the Center for Paper Business and Industry Studies

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CPBIS Research Highlights

*Haizheng Li, Assistant Professor in Tech's School of Economics, contributed the following article on his current research project, "**Price Behavior (and Forecasting and Elasticities) in the Pulp and Paper Industry.**" Haizheng is joined in this project by fellow investigators Shomu Banerjee, Jye-Chyi Lu and Patrick McCarthy, all of the School of Economics, and Art Ragauskas of IPST. This is the sixth in a series of articles focusing on active CPBIS research projects.*

Understanding price behavior is among the most important issues confronting the pulp and paper industry. Information on prices is essential for capacity planning, inventory management, production planning, budgeting, project financial assessment, and contract negotiations. However, explaining price movements poses a formidable challenge. Fundamentally, market prices are determined in a complicated system of demand and supply side interactions within a specific market structure. It is by no means an easy task to accurately model price movements and, therefore, to evaluate where prices may be headed.

Significant and unpredictable paper and pulp price movements have had a number of serious consequences for the pulp and paper industry, including excess capacity, unintended inventory buildup, and financial losses. And, in the long term, unanticipated price behavior could threaten the economic viability of the industry.

The goal of this study is to analyze the pricing behavior of pulp and paper products, focusing primarily on the containerboard sector. Using modern econometric techniques, our approach to analyzing

price movements encompasses three separate but related directions. The first is to identify the underlying process that governs the containerboard price movements based on pure time-series models using historical data. The second direction is to analyze the effect of industry consolidation on price movement and price volatility. It is generally believed that consolidation will help stabilize prices and reduce price volatility. Whether consolidation has had its intended effect upon prices and, if so, the magnitude of the effect, is still largely unknown. The third direction is to construct structural models of market demand and supply in order to study the causative factors of price movements and to estimate various price elasticities.

The research is proceeding in two stages. During the first stage of the research, we have been focusing our energies in an extensive review of the existing literature as it relates to pricing behavior in the industry. This includes academic and trade publications, industry reviews, evaluating current price forecasts and forecasting methodologies, developing and conducting an industry-wide survey on price/demand/production issues, and developing an extensive database of prices in the pulp and paper industry. The second stage of the project focuses upon data analysis, model building and testing. This project will also explore the feasibility of establishing Web-driven real-time market forecasting tools for individual producers. By integrating product demand forecasting tools into production and management processes, producers will be able to adjust production, inventory, and downtime in anticipation of market fluctuations. Thus, it would enable firms to support product prices at a more efficient level.

This study will further the strategic objectives of the pulp and paper industry by providing important insights on those economic determinants that generate price movements. Improved pricing models intended to explain price fluctuations will give us a better understanding of future price movements while deepening our understanding of market interactions and price behavior in the pulp and paper industry.

Paper Summit Update

CPBIS will be much in evidence at Paper Summit 2002, March 4-6 at Atlanta's Georgia World Congress Center (GWCC), and the associated PIMA/TAPPI Student Summit:

March 4-6

IPST/CPBIS/Forestweb/TAPPI/PIMA/@Hoc
Toolbar Exhibit Booth # 2523

Monday, March 4

Student Program and Tours, 4:00 p.m., IPST

PIMA Board of Trustees Meeting hosted by CPBIS/IPST, 1:00 p.m.-4:00 p.m., IPST

IPST/CPBIS Reception for Student Delegates, TAPPI Board and PIMA Board, 6:00 p.m., IPST

Wednesday, March 6

Beyond Today's Paper Machine - a moderated discussion, GWCC, Room 167, 8:00 a.m.-12:30 p.m. and live over the Internet (see below).

Beyond Today's Paper Machine

The last item noted above deserves a few more words. Fifteen years ago, the forest products industry comprised 3% of the S&P 500. Today, the entire paper industry is 0.6% of the S&P 500 and declining. At this level, analysts have little incentive to value marginal improvements in performance. Bob Kinstrey (Jacobs Consultancy) and Jim McNutt (CPBIS), moderators of the program, hope to help begin a dialog that will ultimately make it more clear how the industry should redefine its core technologies to get at the root of the financial problem. The session will be keynoted by Kathy Buckman-Davis, Chairman of Bulab Holdings, Inc., and will take the form of an open-forum discussion led by two expert panels. Panelists will include Mark Wilde (Deutsche Bank), Gary Helik (Tradition), Mike Kocurek (NCSU), Jim Ferris (IPST), Bob Harrison (GL&V), Dan Cappell (AstenJohnson), Bob Eamer (Domtar, ret.) and David Ashcraft (ex-Inland/NCSU). Be there if you can, but if you can't, it's available over the Internet as a "free-live-interactive" Web-cast. Use your PC to listen to and actively participate in the discussions.

Register today for this free Web-cast session at http://www.u4all.com/c/catalog/0,1245,4167_0-10864778,00.html and download the software.

New Perk for CPBIS Supporters

Employees of CPBIS Sponsors now qualify for a complimentary four-week subscription to Forestweb's weekly NewsBeat newsletter, plus a 25% discount on the annual NewsBeat subscription price. Students qualify for a 50% discount! NewsBeat guarantees Forestweb Exclusive market coverage, a daily email newsletter, an 8- to 10-page weekly print newsletter, and archived research. Coverage includes pulp, paper, packaging, recovered paper, lumber, and forestry issues. Sign up today at:

<http://www.forestweb.com/cpbis>.

Internships

Preparations for the 2002 CPBIS Summer Internship Program are underway. This program is intended to broaden the academic formation of CPBIS students by providing them with an opportunity to contribute in an industrial setting. We envision numerous benefits for both the student and the host organization. Interested parties, both students and potential host companies, should contact Professor Gus Giebelhaus, the CPBIS Associate Director for Academic Affairs (<mailto:Gus.Giebelhaus@hts.gatech.edu>). Look for further details in the next issue of this newsletter.

You May Have Missed ...

To get an inkling of what you missed if you were unable to attend two CPBIS-sponsored seminars at IPST, view the presentation files on our Web site. Dan Cenatempo's January 25 presentation, "Creating Value in Turbulent Times," is at:

<http://paperstudies.org/about/ppts/cenatempo.ppt>

Karl Amundson of E-Ink Corp presented "Towards Electronic Paper" on February 8. See:

<http://www.paperstudies.org/events/epaper2-8-02.pdf>

CPBIS Seminars at IPST

Friday, February 22 Dr. Robert Wasson, Strategic Decisions Group. "Achieving Strategic R&D Decision Quality"

Tuesday, March 12 Dr. Dorothy Paun, University of Washington, Topic: Industry financials. Title TBA.■