The goal of the proposed project is to identify economic and regulatory factors that have generated price movements in the pulp & paper industry in order to meet a tactical industry objective of developing improved models for understanding pricing behavior and a strategic industry objective of ensuring the long term economic health of the industry.

The proposed project will employ advanced econometric techniques in order to develop improved paper and pulp pricing models. In particular, regression-based analysis is employed to statistically model those factors that are found to influence prices and to estimate the sensitivity of prices to changes in these determinants. Complementing this, historical time series data will be used to develop pricing behavior models in order to identify the stochastic process that governs price movements. Finally, the project will combine regression analysis with time-series methods to develop more efficient pricing behavior models. In addition to price behavior analysis, this project will also explore the feasibility of implementing a real-time market demand forecast for individual producers. By integrating product demand forecasting tool into production and management processes, producers will be able to adjust production levels in anticipation of market fluctuations, thus avoiding involuntary inventory buildups. This would enable firms to support product prices at a more efficient level.

The proposed project will contribute to research by deepening our understanding of market interactions and price behaviors in the pulp and paper industry. The project will also further the strategic objectives of the paper and pulp industry by providing important insights on those economic determinants that generate price movements and by providing improved pricing models intended to explain price fluctuations with an implication on future price movement. The desired outcomes of the project include a series of research papers and reports on industry structure, pricing behavior, as well as real-time market demand forecasting tools for individual producers.

The proposed project will last for three years. The first year will focus on an industry survey, a case study, an evaluation of existing work on price analyses, and the construction of a preliminary model for the containerboard sector of the industry. The research team includes faculty members from Georgia Tech and the IPST, as well as graduate and undergraduate students. With a broad and in-depth knowledge of econometric and statistical methods, industrial organization, systems engineering, and paper manufacturing technology, the interdisciplinary team possesses the abilities that are necessary for meeting the important research and industry objectives of the proposed project.