



The University of Chicago  
Department of Statistics

MASTER'S THESIS PRESENTATION

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**HAOHUA TANG**

Department of Statistics  
The University of Chicago

## **Biofuel FeedStock Commodity Pricing**

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### **ABSTRACT**

This paper applies two reduced forms of stochastic modeling for commodity spot price and futures valuation, a one-factor model and a two-factor model. We empirically test models using biofuel feedstock commodity futures data traded in CBOT: corn and soybean. For each case, we estimated the model parameters using the Kalman filter and maximum likelihood estimation. We answered the questions: whether the prices for biofuel feedstock commodities (corn and soybean) are mean reverting in different time periods; whether there is convenience yield effect holding the inventory and whether the futures return's volatility term is monotonically increasing or not over term structure?