Transmission of Risk in a Supply Chain

Abstract:
We present an equilibrium model of price dynamics for the transmission of shocks in a supply chain. Starting with exogenous factors for the net supply of the upstream input and the demand for the downstream output, we construct the equilibrium process for the input and output prices, and the spread between input and output prices. We specify and calibrate our model for the case of crude oil and a mix of refined products that includes gasoline and heating oil, in the context of oil refineries and estimate the structural parameters of the model.

Joint work with Hamed Ghoddusi and Sheridan Titman.

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