Industrial & Systems Engineering Seminar

Wednesday, February 9
3:15 PM – Refreshments before the seminar
3:30 PM – Graduate Seminar
Mechanical Engineering Room 4125 A & B

Risk-Aversion Happens: Why Risk-Neutral Manufacturers Ought to Hedge Commodity Material Purchases

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We study a linear two-stage supply chain made up of a profit-maximizing supplier (component manufacturer) selling to a profit-maximizing manufacturer (intermediate or final good assembler). Both firms rely on credit, require commodity inputs, and face some operational and financial frictions. Although both firms are risk-neutral, we find that they both have an economic incentive to hedge their commodity material purchases after agreeing on a wholesale contract (ex post). If hedging increases assembler's price elasticity of demand then both firms may do even better by hedging before agreeing on a wholesale contract (ex ante). A dominating wholesale contract involves hedging ex ante and centralizing commodity material purchases for the entire supply chain at the downstream. The empirical implication of this finding is that the downstream firm, the assembler, has an economic incentive to hedge and coordinate raw material procurement in the entire supply chain.

BIO: Danko Turcic is an Assistant Professor at Olin Business School (Washington University in St. Louis). His research focuses on the interface of operations and finance and applied game theory. Before completing his Ph.D., he was a Vice President at the Treasury Department of U.S. Bancorp where he worked on modeling of financial and operational risk.

FOR MORE INFORMATION ON PROFESSOR TURCIC'S RESEARCH, please visit:
http://www.olin.wustl.edu/facultyandresearch/Faculty/Pages/default.aspx?UserName=turcic