Market Technostructure

Eric K. Clemons
Department of Operations and Information Management
The Wharton School,
University of Pennsylvania
Philadelphia, PA 19104-6366
clemons@wharton.upenn.edu

Robert A. Schwartz
Department of Finance
Zicklin School of Business,
Baruch College, CUNY
17 Lexington Avenue, Box E-0621
New York, NY 10010
robert_schwartz@baruch.cuny.edu

Bruce W. Weber
Department of Information Systems
Management Education Center 9-71
Stern School of Business,
New York University
New York, NY 10012-1126
bweber@stern.nyu.edu

The minitrack on Market Technostructure appears for the third time at HICSS-32. The mini-track continues to examine the impacts of information technology on trading institutions, and on outcomes in markets. The subject area has a focused interest in understanding how a market’s computer-based support for the pricing and exchange of assets or products in an industry can redefine the roles of intermediaries, alter the need for physical proximity among transactors and cause fundamental change in the prices and outcomes achieved in the market. Advances in financial market technostructures are driving the most visible transformations in large part because financial markets have no physical product for distribution, and numerous, competing mechanisms are available for providing information and executing transactions.

The mini-track will feature papers concerning market structure under changing technological conditions. The first paper in the mini-track is "Agent-Mediated Off-Exchange Trading" by Christof Weinhardt and Peter Gomber of the Wirtschaft University of Giessen, Germany. The authors examine the functional characteristics of less liquid markets in which counterparty searching and matching occurs. They describe a system design that will make the process of finding suitable counterparties and determining prices more efficient.

The second paper, "A Tale of Two Trading Venues: System Orders vs. Brokered Orders on the American Stock Exchange" is co-authored by three finance academics, Puneet Handa and Ashish Tiwari of the University of Iowa, and Robert A. Schwartz, of the Zicklin School of Business at Baruch College, City University of New York. The authors examine the characteristics of the American Stock Exchange (Amex) market structure in which electronically routed orders from "upstairs" traders interact on the trading floor with orders being "worked" by brokers. The brokers’ orders are from other traders, who choose to involve the brokers as intermediaries in the trading process. The quality of the trading outcomes for system orders compared to brokered orders is shown to differ. The authors consider the consequences of their results for the design of future market structures.

The third paper, "Screen-Based Trading in Futures Markets: Recent Developments and Research Propositions", by Bruce Weber of NYU concerns the rapid movement of futures and derivatives trading to screen-based markets. The paper examines the success of several new electronic markets in Europe, and provides a detailed description of the market structure of the Cantor Financial Futures Exchange (CFFE), a recently introduced screen market for Treasury futures contracts. The CFFE trading rules and order matching algorithm provide important incentives to place competitive quotes and supply liquidity. The new market should appeal to institutional traders and should challenge the floor-based Chicago Board of Trade (CBOT), which currently dominates trading of treasury futures contracts. The design of an experimental economics study of the two alternative market structures – floor-based open outcry and a screen mechanism – is described.

The mini-track will also feature a presentation by Terry Rickard, Ph.D., President, OptiMark Technologies and Dr. Nicolò Torre of BARRA on "Market Impact Models and OptiMark Trading Strategies." A paper was not ready in time for the proceedings, but will be available at the session.

The topics listed below continue to be of interest for the mini-track:

• New electronic markets, and the impact of computerization on market participants
• Cross-border alliances among financial markets and increasing off-exchange competition
• Transformations of current industry practices and the introduction of on-line markets and auctions
• Intermediaries (e.g., broker-dealers in the financial market) and their roles in the markets of the future