

Baruch College, Zicklin School of Business, CUNY
Microstructure, Fin 89000 Fall 2018

Instructor: Professor Robert Schwartz, 646-312-3467
Vertical Campus, 10th floor, Room 268
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Office Hours: Monday and Wednesday 1:30 – 3:30, and by appointment
Classroom and time: Vertical Campus, VC 10-210, Wednesday, 10:00 – 12:00

Course Description:

The seminar will consider selected topics in equity market microstructure, with attention paid to their microeconomics underpinning. Particular focus will be given to the way in which fundamental information, liquidity needs, and noise trading interact in the generation of trades and, more specifically, to how buy/sell orders are written and translated into trades in the context of alternative market structures. Much attention will be given to issues including liquidity formation, price discovery, and price volatility. Market efficiency and public policy issues concerning the regulation of market structure will also be discussed. A computerized trading simulation software (TraderEx) will be presented and an in-class, networked trading session conducted.

Suggested Course Materials:

The Equity Trader Course, Schwartz, Francioni and Weber, John Wiley & Sons, 2006.

Micro Markets: A Market Structure Presentation of Microeconomic Theory, Schwartz, John Wiley & Sons, 2010.

Outline:

1. (8/29) Introduction to course, thoughts about market efficiency, and reflections on teaching Economics and Finance

“Sparking Excitement about Economics,” Schwartz, *BizEd*, July – August 2011.

“Herd on the Street,” Schwartz, Jupiter and Schlumprecht, invited Editorial, *Journal of Portfolio Management*, Fall 2011.

“A Challenge for Our Equity Markets: Can Liquidity be Augmented, Volatility Better Controlled, and Price Discovery Sharpened?” Schwartz, *Journal of Banking Regulation and Banking*, December, 2016.

No class 9/5 as follows Monday's schedule.

2. (9/12, 9/26) Overview of Market Microstructure

“Security Market Microstructure: The Analysis of a Non-Frictionless Market,” Francioni, Hazarika, Reck and Schwartz, *The Handbook of Quantitative Finance*, C.F. Lee and Alice Lee, Editors, Springer Science+Business, 2010.

“Microstructure of Equity Markets,” Alan, Bildik, and Schwartz, in *Market Microstructure in Emerging and Developed Markets*, The Kolb Series in Finance, John Wiley & Sons, Inc., Baker and Kiyamaz, editors, 2013.

No class 9/19

3. (10/3) Continuous Order Driven Markets

The Equity Trader Course, Chapter 3.

"The Ecology of an Order Driven Market," Handa, Schwartz and Ashish Tiwari, *The Journal of Portfolio Management*, Winter 1998.

4. (10/10) Periodic Call Auctions

The Equity Trader Course, Chapter 4.

Schwartz and Wu, “Equity Trading in The Fast Lane: The Staccato Alternative,” Invited Editorial, *Journal of Portfolio Management*, Spring 2013.

5. (10/17) Price Discovery

“Price Discovery: The Economic Function of a Stock Exchange,” Alan and Schwartz, *Journal of Portfolio Management*, 2013.

Schwartz, Wolf, and Paroush, “The Dynamic Process of Price Discovery in an Equity Market,” “The Dynamic Process of Price Discovery in an Equity Market,” *Managerial Finance*, Volume 36, Issue 7, 2010 pp. 554-565.

“A Call Auction’s Impact on Price Formation and Order Routing: Evidence from the Nasdaq Stock Market,” Pagano, Peng, and Schwartz, *Journal of Financial Markets*, 2014.

6. (10/24, 10/31) Volatility

“The Evolving Quality of the Equity Markets: An Intraday Volatility Analysis,” Alan, Hua and Schwartz, paper in process.

“Combatting Turbulence in the Equity Market: Get the Listed Companies on Board,” Alan, Mahoney, and Schwartz, *Journal of Portfolio Management*, Summer, 2015.

“A Liquidity Program to Stabilize Equity Markets,” Alan, Mask, and Schwartz, *Journal of Portfolio Management*, Winter, 2015.

7. (11/7) Liquidity

“Liquidity: An Elusive Variable,” Francioni, Hazarika, and Schwartz, paper in process.

“Do HFT Firms Provide Two-Sided Liquidity?” Ozenbas and Schwartz, working paper, 2017.

8. (11/14, 11/21, 11/28) Simulated Trading and Trading Education

(11/21 Class meets in the SFSC, Wasserman Trading Floor)

The Equity Trader Course, Chapter 1.

“From Theory to Application: “Using Simulation to Better Understand Price Determination in a Non-Frictionless Equity Market,” Hua, Schwartz and Sipress, *Journal of Portfolio Management*, Fall 2017, forthcoming.

“Trading Rooms: A Bridge to Reality,” Ozenbas and Schwartz, *BizEd*, March-April 2014.

“How Securities are Traded: A Hands-On Introduction Using *TraderEx*,” Schwartz and Weber, draft, 2015.

9. (12/5) Implications for Asset Pricing

“Resiliency and Asset Pricing,” Hua, Peng, Schwartz, & Alan, working paper, 2018.

10. (12/12) Discussion (including Market Structure, Market Efficiency, and Public Policy Issues

Micro Markets, Chapters 7 and 8.

“The SEC’s 1997 Order Handling Rules and Beyond: The Perspective of the Landmark Regulation’s Chief Architect,” Lindsey, Byrne, and Schwartz, *Journal of Portfolio Management*, Spring, 2016.

11. (12/19) Final Exam