

Market Microstructure Theory
Six Weeks on Financial Markets and Private Information
B9330
Spring, 2020
Tuesday and Thursday, 2:15-3:45
Uris 140

Market microstructure is the study, both theoretically and empirically of tick by tick price determination in a security market. Such a study includes the nature of quotes, orders and how transactions evolve. The focus of this course is the set of a relatively few number of standard theoretical models in the area. The course starts with a discussion of market “plumbing,” i.e. the way markets work and their rules. This will form the basis for analyzing the realism of various models. We then work through the models and their variants in order to understand their key contributions and empirical implications. We end with a discussion of regulatory issues and how the models inform, or do not inform, the regulatory discussion.

A book that mirrors our organization of the course is *The Microstructure of Financial Markets* by Frank de Jong and Barbara Rindi (Cambridge University Press, 2009) (in the schedule JR). I do not require purchase of the book (used copies appear to be available for around \$10) in that exam and problem set questions can be answered with the course notes and readings. For plumbing and regulatory issues, you may wish to consult The New Stock Market: Law, Economics and Policy by Merritt B. Fox, Lawrence R. Glosten and Gabriel V. Rauterberg (FGR). Where appropriate, I will make available on Canvas original papers. There will be three problem sets. You may work on these in groups, but each submission is individual. They will amount to 30% of your grade. 70% of the grade will be based on an in-class final exam.

Schedule

- 3/24 **Introduction and overview**
Market Institutions, Structure of Trading
JR Chapter 1, FGR Chapter 1, pp9-29
- 3/26 **Market Plumbing**
FGR
- 3/31 **Regulation of Trading Markets**
FGR Chapter 1 29-33
- 4/2 **Dealer Markets and Competition**
FGR Chapter 3

- 4/7 **Asymmetric Information Equilibrium**
Grossman Stiglitz (1980)
JR Chapter 2
- 4/9 **Rational Expectations Equilibrium**
- 4/14 **Models of liquidity provision**
Kyle (1985)
JR Chapter 3
- 4/16 **Extensions**
- 4/21 **Models of liquidity provision**
Glosten/Milgrom (1985)
JR Chapter 4
- 4/23 **Limit Order Book Equilibrium**
Glosten (1994)
JR Chapter 8
- 4/28 **Empirical implications and measures of liquidity**
JR Chapter 6
- 4/30 **Regulatory issues**
FGR Chapter 4