

Financial Markets Microstructure: Course Plan

This list outlines the plan for the course together with main readings for each topic. Additional readings will be assigned during lectures, whenever needed. The plan is subject to change.

Part 1: Overview

- *Week 1*: Introduction: types of financial markets, types of agents in financial markets
 - FPR chapters 0, 1
- *Week 2*: Liquidity: what it is and why we care
 - FPR chapters 0, 2

Part 2: Setting up the models

- *Weeks 3-4*: Dealer models 1: Glosten-Milgrom, fixed trade size; Bayes' Rule; adverse selection, order costs and inventory risk
 - FPR chapter 3
- *Week 5*: Dealer models 2: Kyle, variable trade size; market depth under adverse selection and inventory risk
 - FPR chapter 4
- *Week 6*: Empirics of illiquidity: estimating liquidity determinants
 - FPR chapter 5
- *Weeks 7-8*: Limit order book; Glosten: static, random market order demand; market design; Parlour: dynamic, endogenous market order demand
 - FPR chapter 6
 - Parlour, Christine A., and Duane J. Seppi. "Limit Order Markets: A Survey." In *Handbook of Financial Intermediation and Banking*, 63–96. Elsevier, 2008. <https://doi.org/10.1016/B978-0444451558-2.50007-6>.
- *Week 6*: Problem set 1 out, due week 8

Part 3: Applying the models; topics

- *Week 9*: Fragmentation costs, modified Kyle model; fragmentation benefits, modified Glosten LOB model
 - FPR chapter 7
- *Week 10*: Transparency: search costs, modified GM model for order flow transparency
 - FPR chapters 8
- *Week 11*: Liquidity risk and Illiquidity premia
 - FPR chapter 9
- *Week 11*: Problem set 2 out, due week 13
- *Week 12*: Liquidity and corporate policy; Digital markets
 - FPR chapter 10
 - Kirilenko, Andrei A., and Andrew W. Lo. "Moore's Law versus Murphy's Law: Algorithmic Trading and Its Discontents." *The Journal of Economic Perspectives* 27, no. 2 (2013): 51–72. <https://dx.doi.org/10.1257/jep.27.2.51>
 - Nica, Octavian, Karolina Piotrowska, and Klaus Reiner Schenk-Hoppé. "Cryptocurrencies: Economic Benefits and Risks." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, Oct 2017. <https://doi.org/10.2139/ssrn.3059856>
- *Week 13*: High-frequency trading

- Beason, Tyler, and Sunil Wahal. “The Anatomy of Trading Algorithms.” SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, December 2, 2019. <https://doi.org/10.2139/ssrn.3497001>.
- Biais, Bruno, Thierry Foucault, and Sophie Moinas. “Equilibrium Fast Trading.” *Journal of Financial Economics* 116, no. 2 (May 1, 2015): 292–313. <https://doi.org/10.1016/j.jfineco.2015.03.004>
- Budish, Eric, Peter Cramton, and John Shim. “The High-Frequency Trading Arms Race: Frequent Batch Auctions as a Market Design Response.” *The Quarterly Journal of Economics* 130, no. 4 (2015): 1547–1621. <https://doi.org/10.1093/qje/qjv027>
- *Week 14*: Public information; optimal disclosure policies; public announcements and trade volumes
 - Kondor, Péter. “The More We Know about the Fundamental, the Less We Agree on the Price.” *The Review of Economic Studies* 79, no. 3 (2012): 1175–1207. <https://doi.org/10.1093/restud/rdr051>
- *Week 15*: Bubbles; herding; common knowledge
 - Smith, Lones, and Peter Norman Sørensen. “Observational Learning.” *The New Palgrave Dictionary of Economics Online Edition*, 2011, 29–52. <http://www.econ.ku.dk/Sorensen/papers/observational-learning.pdf>
 - Bikhchandani, Sushil, and Sunil Sharma. “Herd Behavior in Financial Markets.” *IMF Staff Papers* 47, no. 3 (2000): 279–310. <https://doi.org/10.2307/3867650>
 - Abreu, Dilip, and Markus K. Brunnermeier. “Bubbles and Crashes.” *Econometrica* 71, no. 1 (2003): 173–204. <https://doi.org/10.1111/1468-0262.00393>