Econ 893: Independent Study The Ohio State University Summer 2007

Syllabus

The purpose of this course is to augment what was learned during the first year micro sequence in order to develop a better comprehension and foundation for future research in theory with the ultimate goal of exposing the student to future research possibilities.

Published in Econometrica, January 2007, Swatterthwaite and Schneyerov wrote a paper titled: '*Dynamic Matching, Two-Sided Incomplete Information, and Participation Costs: Existence and Convergence to Perfect Competition*', where they develop a decentralized model of dynamic matching and bargaining and showed that when there are two sided incomplete information and participation costs, the model converges to the competitive allocation and price as frictions vanish. The significance of this contribution is that it directly addresses a shortcoming in each of two literatures it combines. Existing matching and bargaining models that demonstrate robust convergence ignore the ubiquity of incomplete information. Existing double auction models robustly demonstrate convergence in the presence of incomplete information, but ignore the future opportunities for trade that exist in almost all real markets.

This course will offer a short survey of the two literatures this paper builds upon. The references below contain some of the important works from the two literatures. Through the quarter the student will meet with the course supervisor for one to two hours per week to discuss the literature and to clarify any questions the student may have. The evaluation for the course will be based on a paper, which may be either a focused literature review or a research draft proposal. The paper is due at the end of the summer quarter and should be at least 20 pages long.

Provide a weekly list of papers (or topics) to be covered.

References:

SATERTHWAITE, M., AND SCHNEYEROV, A. (2007): "Dynamic Matching, Two-Sided Incomplete Information, and Participation Costs: Existence and Convergence to Perfect Competition," *Econometrica*, 75, 155-200.

Static Double Auctions:

CHATTERJEE, K., AND W. SAMUELSON (1983): "Bargaining under Incomplete Information," *Operations Research*, 31, 835–851.

MYERSON, R., AND M. SATTERTHWAITE (1983): "Efficient Mechanisms for Bilateral Trading," *Journal of Economic Theory*, 29, 265–281.

GRESIK, T., AND M. SATTERTHWAITE (1989): "The Rate at Which a Simple Market

Converges to Efficiency as the Number of Traders Increases: An Asymptotic Result for Optimal Trading Mechanisms," *Journal of Economic Theory*, 48, 304–332.

SATTERTHWAITE, M., AND S. WILLIAMS (1989a): "The Rate of Convergence to Efficiency in the Buyer's Bid Double Auction as the Market Becomes Large," *Review of Economic Studies*, 56, 477–498.

CRIPPS, M., AND J. SWINKELS (2006): "Efficiency in Large Double Auctions," *Econometrica*, 74, 47–92.

RENY, P., AND M. PERRY (2003): "Toward a Strategic Foundation of Rational Expectations Equilibrium," *Econometrica*, 74, 1231–1269.

Dynamic Matching and Bargaining Games:

Noncooperative Foundations of Perfect Competition Using Dynamic Matching and Bargaining Games:

MORTENSEN, D. (1982): "The Matching Process as a Non-Cooperative/Bargaining Game," in *The Economics of Information and Uncertainty*, ed. by J. McCall. Chicago: University of Chicago Press, Chap. 7.

RUBINSTEIN, A., AND A. WOLINSKY (1985): "Equilibrium in a Market with Sequential Bargaining," *Econometrica*, 53, 1133–1150.

RUBINSTEIN, A., AND A. WOLINSKY (1990): "Decentralized Trading, Strategic Behavior, and the Walrasian Outcome," *Review of Economic Studies*, 57, 63–78.

GALE, D. (1986): "Bargaining and Competition Part I: Characterization," *Econometrica*, 54, 785–806.

GALE, D. (1987): "Limit Theorems for Markets with Sequential Bargaining," *Journal of Economic Theory*, 43, 20–54.

MORTENSEN, D., AND R. WRIGHT (2002): "Competitive Pricing and Efficiency in Search Equilibrium," *International Economic Review*, 43, 1–20.

Dynamic Bargaining and Matching Models with Incomplete Information: WOLINSKY, A. (1988): "Dynamic Markets with Competitive Bidding," *Review of Economic Studies*, 55, 71–84.

DE FRAJA, G., AND J. SAKOVICS (2001): "Walras Retrouvé: Decentralized Trading Mechanisms and the Competitive Price," *Journal of Political Economy*, 109, 842–863.

SERRANO, R. (2002): "Decentralized Information and the Walrasian Outcome: A Pairwise Meetings Market with Private Values," *Journal of Mathematical Economics*, 38, 65–89.