University of Oklahoma
Department of Economics

Econ 6333-001 Seminar in Industrial Organization

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Office Hours: Mon. 1:50 pm - 2:50 pm
Wed. 1:50 pm - 2:50 pm
and by appointment
Class schedule: MW 3pm - 4:15pm

TENTATIVE SYLLABUS

Course Description

This course is designed for Ph.D. students interested in empirical topics/methods in Industrial Organization(hereafter, IO). The goal of this course is to familiarize students with the IO topics in the literature today and to help them conduct research in empirical IO. The class will switch back and forth between a "lecture style" and a "discussion style." Typically for each section, I will present a paper in lecture/presentation format and then announce that we will discuss a particular paper. For discussion papers, I might hand out a list of questions a week in advance. In this case, you are expected to come to class with answers to each question.

Requirements

There will be several problem sets based on the readings. They are likely to be computer and data intensive. Make sure that you have an access to the computer programs such as STATA, SAS, Gauss, Matlab, R, and etc.. There will be a credit deduction for late homework submissions. In addition, there will be several **referee report assignments**.[1] You must turn it in before the paper is discussed in class. Students are required to present one of the papers listed below in bold text or a paper you want to present. You must obtain my approval of your choice of paper by the third week of class, i.e. Feb. 1st. There is no final exam. Instead, students must submit a term paper no later than May 6th. Also, students must present the term paper in class in April and the 1st week of May. You must submit your term paper proposal no later than March 1st so that I can read and approve them.

Grading

Problem sets will count for 15%, referee report assignments count for 20%, paper presentations in class for 20%, class participation for 5%, and the term paper counts for 40% of your final grade.

Course Web Page

Class announcements will be posted on the course web. It is students' responsibility to check the site regularly (at least every Monday and Wednesday). All important announcements will be posted on it.

Readings:

Readings will be taken primarily from the list below. Not all papers are classics and some classics have not been listed below. There is no required textbook, but I provide a list of textbooks that you can consider;

Tirole, J. (1988). *The Theory of Industrial Organization.* MIT Press, Cambridge.

Martin, S. (2002). *Advanced Industrial Economics.* Blackwell Publishers.

Acherberg, D. A., Benkard, C.L., Berry, S., and Pakes, A. (2007). Econometric tools for analyzing market outcomes. In Heckman, J. and Learmer, E., editors, *Handbook of Econometrics Vol. 6*, chapter 15. North Holland.

[1] referee reports that you yourself write based on one of the papers that I assign.

Cameron, A. C. and Trivedi, P.K. (2005). *Microeconometrics: Methods and Applications.* Cambridge University Press.

Kenneth E. Train (2009). *Discrete Choice Methods with Simulation.*, Second Edition.

Reading List

Introduction to IO

Lecture notes

Micro-econometrics for IO

Lecture notes
Cameron, A. C. and Trivedi, P.K. (2005)
Kenneth E. Train (2009)

All/some of my working papers for referee reports

Productivity

Nerlove, M. (1963). Returns to scale in electricity supply. In Christ, C., editor, *Measurement in Economics*, pages 167 - 198. Stanford University Press
Christensen, L. and Greene, W. H. (1973). Economies of scale in U.S. electric power generation. *Journal of Political Economy*, 84:655-675
Olley, S. and Pakes, A. (1996). The dynamics of productivity in the telecommunications equipment industry. *Econometrica*, 64:1263-1297
Levinsohn, J. and Petrin, A. (2003). Estimating production functions using inputs to control for unobservables. *Review of Economic Studies*, 70:317-342
Hubbard, T. N. (2003). Information, decisions, and productivity: On-board computers and capacity utilization in trucking. *American Economic Review*, 93:1328-1353
Holmes, T. J. (2011). The diffusion of Wal-Mart and economies of density. *Econometrica*, 79:253-302

Demand

Anderson, S., De Palma, A., and Thisse, J.-F. (1992). *Discrete Choice Theory of Product Differentiation.* MIT Press.
Bresnahan, T. (1987a). Competition and collusion in the American auto industry: The 1955 price war. *Journal of Industrial Economics*, 35:457-482.
Bresnahan, T. (1987b). Empirical studies of industries with market power. In Schmalensee, R. and Willig, R., editors, *Handbook of Industrial Organization*, volume 2, chapter 7, pages 10011-10158. North Holland, Amsterdam.
Berry, S. (1994) Estimating discrete choice models of product differentiation. *RAND Journal of Economics*, 25:242-262
Berry, S., Levinsohn, J., and Pakes, A. (1995) Automobile prices in market equilibrium. *Econometrica*, 63:841-890.
Berry, S., Levinsohn, J., and Pakes, A. (1999). Voluntary export restraints on automobiles: Evaluating a strategic trade policy. *American Economic Review*, 89:400-430.
Ackerberg, D. A. and Rysman, M. (2005). Unobservable product differentiation in discrete choice models: Estimating price elasticities and welfare effects. *RAND Journal of Economics*, 36:771-788.

Nevo, A. (2000). A practitioner's guide to estimation of random coefficients logic models of demand. *Journal of Economics & Management Strategy*, 9:513-548.
Nevo, A. (2001). Measuring market power in the ready-to-eat breakfast cereal industry. *Econometrica*, 69:307-342.
Petrin, A. (2002). Quantifying the benefits of new products: The case of the minivan. *Journal of Political Economy*, 110:705-729.
Fan, Y. (2011). Ownership consolidation and product characterstics: A study of the U.S. daily newspaper market. forthcoming, *American Economic Reivew.*
Decarolis, F. (2013). Pricing and incentives in publicly subsidized health care markets: the Case of Medicare Part D. Unpublished Manuscript.
Kim, M. (2013). Strategic responses to used-goods markets: Airbus and Boeing since 1997. Unpublished Manuscript.

Entry and Discrete Games

Bresnahan, T. and Reiss, P. (1991). Entry and competition in concentrated markets. *Journal of Political Economy*, 99:977-1009.
Berry, S. (1992). Estimation of a model of entry in the airline industry. *Econometrica*, 60:889-917.
Mazzeo, M. (2002). Product choice and oligopoly market structure. *RAND Journal of Economics*, 33:1-22
Seim, K. (2006). An empirical model of firm entry with endogenous product-type choices. *RAND Journal of Economics*, 37:619-640.
Jia, P. (2008). What happens when Wal-Mart comes to town: An empirical analysis of the disc out retailing industry. *Econometrica*, 76:1263-1316.
Ciliberto, F. and Tamer, E. (2009). Market structure and multiple equilibria in airline markets. *Econometrica*, 77:1791-1828.
Pakes, A., Porter, J., Ho, K., and Ishii, J. (2011). Moment inequalities and their application. Unpublished Manuscript, Columbia University.
Richard, O. (2003). Flight frequency and mergers in airline markets. *International Journal of Industrial Organization*, 21:907–922.
Goolsbee, A. and Syverson, C. (2008), How do incumbents respond to the threat of entry? Evidence from the major airlines. *The Quarterly Journal of Economics*, 123:1611–1633 (*)
Eizenberg, A. (2011). Upstream innovation and product variety in the U.S. home PC market. Unpublished Manuscript.
Joskow, S. A., Werden, J. G. and Johnson, L. R. (1994). Entry, exit, and performance in airline markets. *International Journal of Industrial Organization.* 12:457-471.
Ho, K. (2009). Insurer-provider networks in the medical care market. *American Economic Review*, 99:393-430.
Sutton, J. (1991). *Sunk Costs and Market Structure: Price Competition, Advertising and the Evolution of Concentration.* MIT Press.
Ellickson, P. (2007). Does Sutton apply to supermarkets? *RAND Journal of Economics*, 38:43-59.

Dynamic demand: *Optional (if time allows)*

Rust, J. (1987). Optimal replacement of GMC bus engines: An empirical model of Harold Zurcher. *Econometrica*, 55:999-1033.
Ackerberg, D. A. (2003). Advertising, learning, and consumer choice in experience good markets: A structural empirical examination. *International Economic Review*, 44:1007-1040.
Hendel, I. and Nevo, A. (2006). Measuring the implications of sales and consumer stock piling behavior. *Econometrica*, 74:1637-1673.
Gowrisankaran, G. and Rysman, M. (2012). Dynamic demand for consumer durable goods. forthcoming, *Journal of Political Economy.*
Hotz, J. V. and Miller, R. J. (1993). Conditional choice probabilities and the estimation of dynamic models. *Review of Economic Studies*, 60:497-529.

Hotz, J. V., Miller, R. A., Sanders, S., and Smith, J. (1994). A simulation estimate for dynamic models of discrete choice. *Review of Economic Studies*, 61:265-289.
Aguirregabiria, V. and Mira, P. (2002). Swapping the nested fixed point algorithm: A class of estimators for markov decision models. *Econometrica*, 70:1519-1543.

Dynamic games: *Optional (if time allows)*

Klepper, S. (2002). Firm survival and the evolution of oligopoly. *RAND Journal of Economics*, 33:37-61.
Olley, S. and Pakes, A. (1996). The dynamics of productivity in the telecommunications equipment industry. *Econometrica*, 64:1263-1297
Klepper, S. and Simons, K. (2000). The making of an oligopoly: Firm survival and technological change in the evolution of the U.S. tire industry. *Journal of Political Economy*, 108.
Benkard, C. L. (1999). Learning and forgetting: The dynamics of aircraft production. *American Economic Review*, 90:1034-1054.
Benkard, C. L. (2004). A dynamic analysis of the market for wide-bodied aircraft. *Review of Economics Studies*, 71(3):581-611.
Gowrisankaran, G. and Town, R. (1997). Dynamic equilibrium in the hospital industry. *Journal of Economics and Management Strategy*, 6:45-74.
Aguirregabiria, V. and Mira, P. (2007). Sequential estimation of dynamic discrete games. *Econometrica*, 75:1-53.
Pakes, A., Ostrovsky, M., and Berry, S. (2007). Simple estimators for the parameters of discrete dynamic games (with entry/exit examples). *RAND Journal of Economics*, 38:373-399.
Bajari, P., Benkard, L., and Levin, J. (2007). Esimating dynamic models of imperfect competition. *Econometrica*, 75:1331-1370.
Collard-Wexler, A. (2010). Demand fluctuations and plant turnover in the ready-mix concrete industry. Unpublished Manuscript, New York University.
Ryan, S. (2012). The costs of environmental regulation in a concentrated industry. *Econometrica*, 80:1019-1062.
Stahl, C. J. (2012). Demand-side and Supply-side Advantages of Consolidation in the Broadcast Television Industry. Unpublished Manuscript.
Igami M. (2013). Estimating the Innovator?s Dilemma: Structural Analysis of Creative Destruction. Unpublished Manuscript. Yale University.
Kalouptsidi, M. (2013). Time to Build and Fluctuations in Bulk Shipping. forthcoming, *American Economic Review*.
Goettler, L., R. and Gordon, B. (2011). Does AMD spur Intel to innovate more? *Journal of Political Economy*, 119(6), 2011