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S140 Industrial Organisation
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STRATEGIC BEHAVIOUR AND MARKET STRUCTURE

Course Description

This part of the Industrial Organisation paper covers research methods in integrating theoretical and empirical industrial organization. The primary focus will be on the use of econometric analysis and data both for descriptive and measurement purposes, and to test the predictions of economic theories. Papers that demonstrate the various methods will be discussed in detail with an emphasis on data, sources of identification, and estimation techniques. The first goal of this part of the paper is to apply the insights of industrial organization theory to understand important issues observed in the real business world. The second goal is to understand the practical challenges of empirical applications of theory.

Background Texts

Tirole (1994) The Theory of Industrial Organization

Church J. and R. Ware (2000), Industrial Organization: A Strategic Approach, McGrawHill

Martin (2002) Advanced Industrial Economics (2nd ed.)

Carlton & Perloff (2000) Modern Industrial Organization (3rd ed.)

Vives, X. (1999) Oligopoly Pricing, Cambridge, MA: MIT Press

Motta M (2004) Competition Policy: Theory and Practice, CUP

Perloff, Karp and Golan, (2007) Estimating Market Power and Strategies, CUP

Handbook of Industrial Organization, Vol. I & II, North-Holland.

Topic 1: Introduction and Structure-Conduct-Performance paradigm

Essential

Church and Ware (2000), Industrial Organization: A Strategic Approach, chapter 12.

Perloff, Karp and Golan, (2007) Estimating Market Power and Strategies, chapters 1-2.

Schmalensee, R. (1989) "Inter-industry studies of structure and performance", Handbook of Industrial Organization, 951-1009.

Salinger (1990) "The concentration-Margins Relationship Reconsidered", Brookings Papers on Economic Activity on Microeconomics, 287-321.

Additional

Geroski, P. (1981) "Specification and Testing the Profits-Concentration Relationship: Some experiments for the UK", *Economica*, 48:279-88.

Geroski (1988) "In Pursuit of Monopoly Power: Recent Quantitative Work in Industrial Economics", *Journal of Applied Econometrics*, 3: 107-123.

Topic 2: Static Market Models and Firm Conduct

Essential

Bresnahan, T.F. (1982) "The Oligopoly Solution is Identified," *Economics Letters*, 10, 87-92.

Bresnahan, T.F. "Empirical Studies with Market Power," *Handbook of Industrial Organization*, vol. II, chap. 17.

Additional

Vives, X. Chapters 1-5.

Corts, K. (1999), "Conduct parameters and the measurement of market power," *Journal of Econometrics*, 88, 227-250.

Genesove, D. and Mullin, W. (1998) "Testing Static Oligopoly Models: Conduct and Cost in the Sugar Industry, 1890-1914", *Rand Journal of Economics*, 29:355-377.

Graddy K. (1995) "Testing for imperfect competition at the Fulton Fish Market", *Rand Journal of Economics*, 26:75-92.

Shapiro, C., "Theories of Oligopoly Behavior," in *Handbook of Industrial Organization*, Vol I, Chapter 6.

Topic 3: Differentiated Product Markets and Demand Estimation

Essential

Hausman, J. (1996), "Valuation of New Goods Under Perfect and Imperfect Competition," in Bresnahan and Gordon (eds.), *The Economics of New Goods*, NBER Studies in Income and Wealth 58, 209-237 (see also a comment by Bresnahan in the same volume).

Berry, S. (1994), "Estimating Discrete Choice Models of Product Differentiation", *Rand Journal of Economics* 25, Summer, 242-262.

Bresnahan, T.F. (1987), "Competition and Collusion in the American Automobile Oligopoly: The 1955 Price War," *Journal of Industrial Economics* 35, June, 457-482.

Berry, S., J. Levinsohn, and A. Pakes (1995), "Automobile Price in Market Equilibrium," *Econometrica* 63, July, 841-890.

Nevo, A. (2001) "Measuring Market Power in the Ready-to-Eat Cereal Industry," *Econometrica* 69, 307-342.

Nevo, A. (2000) "A Practitioner's Guide to Estimation of Random Coefficients Logit Models of Demand," *Journal of Economics and Management Strategy* 9, 513-548.

Additional

Anderson, S. P., A. de Palma, and J. F. Thisse, *Discrete Choice Theory of Product Differentiation*, Chapters 1-5, Cambridge: MIT Press, 1992.

Caplin, A., and B. Nalebuff (1991), "Aggregation and Imperfect Competition: On The Existence of Equilibrium," *Econometrica* 59, January, 25-60.

Deaton, A., and J. Muellbauer, *Economics and Consumer Behavior*, New York: Cambridge University Press, 1980.

Deaton, A., and J. Muellbauer (1980), "An Almost Ideal Demand System," *American Economic Review* 70, 312-326.

McFadden, D., "Econometric Analysis of Qualitative Response Models," in Griliches and Intilligator (Eds.), *Handbook of Econometrics*, Volume III, Amsterdam: North Holland, 1984.

Berry, S., J. Levinsohn, and A. Pakes (2004), "Differentiated Product Demand Systems from a Combination of Micro and Macro Data: The New Car Market," *Journal of Political Economy* 112, February, 68-105.

Davis, P. (2006), "Spatial Competition in Retail Markets: Movie Theaters," *RAND Journal of Economics*.

Genakos C. (2004) "Differential Merger Effects: The Case of the Personal Computer Industry", London Business School, mimeo and STICERD Working Paper No. EI/39.

Hausman, J., G. Leonard, and J. D. Zona. (1994) "Competitive Analysis with Differentiated Products," *Annales d'Economie et de Statistique* 34, 159-180.

Petrin, A. (2002) "Quantifying The Benefits of New Products: The Case of The Minivan," *Journal of Political Economy* 110, 705-729.

Nevo, A. (2000a) "Mergers with Differentiated Products: The Case of the Ready-to-eat Cereal Industry", *RAND Journal of Economics*, 31 (3), 395-421.

Baker, J. P. and Bresnahan, T. (1985) "The Gains from Merger or Collusion in Product-Differentiated Industries", *Journal of Industrial Economics*, 33, 427-444.

Verboven, F (1996) "International Price Discrimination in the European Car Market", *RAND Journal of Economics*, 27 (2), 240-268.

Topic 3: Estimating Production Functions

Essential

Griliches, Z. and J. Mairesse (1995); "Production Functions: The Search for Identification"; NBER Working paper No. 5067, and chapter 6 in S. Strom (ed.). *Econometrics and Economic Theory in the 20th Century*, Econometric Society Monographs No. 31, Cambridge University Press.

Steve Bond and Mans Sørensen. Adjustment costs and the identification of Cobb-Douglas production functions. IFS Working Papers W05/04, 2005.

Steven Olley and Ariel Pakes. The dynamics of productivity in the telecommunications equipment industry. *Econometrica*, 64:1263–97, 1996.

James Levinsohn and Amil Petrin. Estimating production functions using inputs to control for unobservables. *Review of Economic Studies*, 70(2)(243):317–342, 2003.

Tor J. Klette. Market power, scale economies and productivity: estimates from a panel of establishment data. *Journal of Industrial Economics*, XLVII(4):451–476, December 1999.

Additional

Daniel A. Akerberg and Kevin Caves. Structural identification of production functions - an application to the timing of input choice. mimeo, 2003.

Martin N. Baily, Charles Hulten, and David Campbell. Productivity dynamics in manufacturing plants. *Brookings Papers: Microeconomics*, pages 187–267, 1992.

Nick Bloom, John van Reenen, and Raffaella Sadun. It ain't what you do it's the way that you do it. investigating the productivity miracle using multinationals. <http://www.stanford.edu/nbloom/ItAin'tWhatYouDo.pdf>.

R. W. Blundell and S. R. Bond. Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87:115–143, 1998.

Chiara Criscuolo and Ralf Martin. Multinationals and us productivity leadership: Evidence from great britain. CEP discussion paper, 0672.

Tor J. Klette and Zvi Griliches. The inconsistency of common scale estimators when output prices are unobserved and endogenous. *Journal of Applied Econometrics*, 11:343–361, 1996.

Ralf Martin. Computing the true spread. CEP Discussion Paper 0692, 2005.

Marc J. Melitz. Estimating firm-level productivity in differentiated product industries. working paper, December 2000.

N. Pavcnik. Trade liberalization, exit, and productivity improvements: Evidence from chilean plants. *The Review of Economic Studies*, 69:245–276, January 2002.

Topic 4: Empirical Models of Entry and Market Structure

Essential

Bresnahan, T., and P. Reiss (1991), “Entry and Competition in Concentrated Markets,” *Journal of Political Economy* 99, October, 977-1009.

Mazzeo, M. J. (2002), “Product Choice and Oligopoly Market Structure,” *Rand Journal of Economics* 33, Summer, 221-42.

Berry, S. (1992), “Estimation of a Model of Entry in the Airline Industry,” *Econometrica* 60, July, 889-918.

Berry, S., and Waldfogel, J. (1999) “Free Entry and Social Inefficiency in Radio Broadcasting,” *RAND Journal of Economics*, vol. 30, no. 3, pp. 397-420..

Additional

Anderson, S., A. de Palma, and Y. Nesterov (1995), “Oligopolistic Competition and the Optimal Provision of Products,” *Econometrica* 63, November, 1281-1302.

Baumol, W.K., J.C. Panzar, and R.D. Willig, “On the Theory of Perfectly Contestable Markets,” in J.E. Stiglitz and G.F. Mathewson (Eds.), *New Developments in the Analysis of Market Structure*, MIT Press, 1986.

Bresnahan, T., “Sutton's Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration: Review Article,” *Rand Journal of Economics* 23, Spring 1992, 137-52.

Mankiw, N. G., and M. D. Whinston, “Free Entry and Social Inefficiency,” *Rand Journal of Economics*, 17, Spring 1986, 48-58.

Sutton, J. *Sunk Costs and Market Structure*, MIT Press, 1991, Chapters 1-2.

Tirole, Chapters 8.1-8.2.

Bresnahan, T., and P. Reiss, “Entry in Monopoly Markets,” *Review of Economic Studies*

57, 1990, 531-53.

Comments on Bresnahan and Reiss, *Brookings Papers on Economic Activity: Special Issue on Microeconomics* 3, 1987, 872-882.

Seim, K., "An Empirical Model of Firm Entry with Endogenous Product-Type Choices," mimeo, Stanford University, 2004.

Ciliberto, F., and E. Tamer, "Market Structure and Multiple Equilibria in Airline Markets," mimeo, Northwestern University.

Toivannen, O., and M. Waterson, "Market Structure and Entry: Where's the Beef?" *Rand Journal of Economics*, forthcoming.