

The Johns Hopkins University
Department of Economics
Industrial Organization (Spring 2009)

Instructor: Adam Copeland
Class time: Wednesdays 10 to 12 in Merg 426
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Overview

The purpose of this course is to prepare students to do empirical research in industrial organization. The material covered in this term relates largely to firm behavior in oligopolistic markets. There will be an emphasis on empirical (data-related) work, although theoretical work will also be presented and discussed, with a view towards motivating (1) how theory can be tested; (2) how theoretical models can be adapted into empirical models, in order to estimate theoretically important parameters.

Grading

1. ($\frac{1}{3}$ of total) Problem sets, a mix of computational and analytical problems.
2. ($\frac{1}{3}$ of total) Discussant report to be written on IO-related papers.
3. ($\frac{1}{3}$ of total) In-class presentations (lasting 20-30 minutes). I prefer that you present an original research idea, but you can present a published paper (preferable something current, that has not yet been published).

Please check my personal website (<http://www.copeland.marginalq.com>) for the problem sets and a good portion of the lecture notes.

Below I have listed the course topics in the order they will be covered. We may skip or add topics to the course depending upon the interests of the class and time constraints. The starred papers are those on which the class will focus.

General References

The chapters in the *Handbook of Industrial Organization* series are useful surveys of particular areas of research.

Two books that I also find useful:

- Discrete Choice Methods with Simulation by Kenneth E. Train
- Sunk Costs and Market Structure by John Sutton

1 Topics

1.1 Competition in Differentiated Product Oligopolies

1. (*) Berry (1994)
2. (*) Berry, Levinsohn, and Pakes (1995)
3. (*) Nevo (2001)
4. Nevo (2000)
5. (*) Bresnahan (1987)
6. (*) Petrin (2002)
7. Villas-Boas (2007)
8. Christensen, Jorgenson, and Lau (1975)
9. Trajtenberg (1989)
10. Goldberg (1995)

1.2 Entry & Exit

1. (*) Bresnahan and Reiss (1991)
2. John Sutton
3. (*) Berry (1992)
4. (*) Mazzeo (2002)
5. (*) Seim (2006)

1.3 Single Agent Dynamics

1. Rust (1987)
2. Pakes (1986)
3. Porter (1983)
4. Gowrisankaran and Rysman (2007)
5. Gordon (forthcoming)
6. Eckstein and Wolpin (1989)
7. Benkard (2004)

1.4 Pricing

1. Erdem, Imai, and Keane (2003)
2. Hendel and Nevo (2006)
3. Aguirregabiria (1999)

1.5 Incentives

1. Lazear (2000)
2. Ferrall and Shearer (1999)
3. Shearer (2004)
4. Bandiera, Barankay, and Rasul (2005), Bandiera, Barankay, and Rasul (2007)
5. Akerberg and Botticini (2002)

References

- ACKERBERG, D. A., AND M. BOTTICINI (2002): “Endogenous Matching and the Empirical Determinants of Contract Form,” *Journal of Political Economy*, 110:3, 564–591.
- AGUIRREGABIRIA, V. (1999): “The dynamics of markups and inventories in retailing firms,” *Review of Economic Studies*, 66, 275–308.
- BANDIERA, O., I. BARANKAY, AND I. RASUL (2005): “Social Preferences and the Response to Incentives: Evidence from Personnel Data,” *Quarterly Journal of Economics*, 120, 917–962.
- (2007): “Incentives for Managers and Inequality Among Workers: Evidence from a Firm Level Experiment,” *Quarterly Journal of Economics*, 122, 729–773.
- BENKARD, C. L. (2004): “A Dynamic Analysis of the Market for Wide-Bodied Commercial Aircraft,” *Review of Economic Studies*, 71:3, 581–611.
- BERRY, S. (1992): “Estimation of a Model of Entry in the Airline Industry,” *Econometrica*, 60:4, 889–917.
- (1994): “Estimating discrete choice models of product differentiation,” *RAND Journal of Economics*, 71, 581–611.
- BERRY, S., J. LEVINSOHN, AND A. PAKES (1995): “Automobile Prices in Market Equilibrium,” *Econometrica*, 63, 841–890.
- BRESNAHAN, T. (1987): “Competition and Collusion in the American Automobile Industry: 1955 Price War,” *Journal of Industrial Economics*, vol 35(4), 457–82.
- BRESNAHAN, T. F., AND P. C. REISS (1991): “Entry and Competition in Concentrated Markets,” *Journal of Political Economy*, 99:5, 977–1009.
- CHRISTENSEN, L., D. JORGENSON, AND L. LAU (1975): “Transcendental Logarithmic Utility Functions,” *American Economic Review*, 65(3), 367–83.

- ECKSTEIN, Z., AND K. I. WOLPIN (1989): “The Specification and Estimation of Dynamic Stochastic Discrete Choice Models: A Survey,” *Journal of Human Resources*, 24:4, 562–598.
- ERDEM, T., S. IMAI, AND M. KEANE (2003): “A Model of Consumer Brand and Quality Choice Dynamics Under Price Uncertainty,” *Quantitative Marketing and Economics*, 1, 5–64.
- FERRALL, C., AND B. SHEARER (1999): “Incentives and Transactions Costs Within the Firm: Estimating an Agency Model Using Payroll Records,” *Review of Economic Studies*, 66, 309–338.
- GOLDBERG, P. K. (1995): “Product Differentiation and Oligopoly in International Markets: The Case of the U.S. Automobile Industry,” *Econometrica*, 63, 891–951.
- GORDON, B. (forthcoming): “Estimating a dynamic model of demand with durable goods,” *Marketing Science*.
- GOWRISANKARAN, G., AND M. RYSMAN (2007): “Dynamics of Consumer Demand for New Durable Goods,” mimeo.
- HENDEL, I., AND A. NEVO (2006): “Sales and Consumer Inventory,” *RAND*, 37(3), 543–561.
- LAZEAR, E. P. (2000): “Performance Pay and Productivity,” *American Economic Review*, 90, 1346–1361.
- MAZZEO, M. (2002): “Product choice and oligopoly market structure,” *Rand Journal of Economics*, 33:2, 221–242.
- 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.
- (2001): “Measuring market power in the ready-to-eat breakfast cereal industry,” *Econometrica*, 69, 307–342.
- PAKES, A. (1986): “Patents as Options: Some Estimates of the Value of Holding European Patent Stocks,” *Econometrica*, 54, 755–784.

- PETRIN, A. (2002): “Quantifying the Benefits on New Products: The Case of the Minivan,” *Journal of Political Economy*, 110, 705–729.
- PORTER, R. (1983): “A Study of Cartel Stability: The Joint Executive Committee, 1880-1886,” *The Bell Journal of Economics*, 14:2, 310–314.
- RUST, J. (1987): “Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher,” *Econometrica*, 55, 999–1033.
- SEIM, K. (2006): “An empirical model of firm entry with endogenous product-type choices,” *Rand Journal of Economics*, 37:3, 619–40.
- SHEARER, B. (2004): “Piece Rates, Fixed Wages, and Incentives: Evidence from a Field Experiment,” *Review of Economic Studies*, 71, 513–534.
- TRAJTENBERG, M. (1989): “The Welfare Analysis of Product Innovations, with an Application to Computed Tomography Scanners,” *Journal of Political Economy*, 97(2), 444–79.
- VILLAS-BOAS, S. (2007): “Vertical Relationships between Manufacturers and Retailers: Inference with Limited Data,” *Review of Economic Studies*, 74:2, 625–52.