# **Industrial Organization Theory**

#### **BECN 3015/ECON 2470**

# **Spring 2007**

Professor Esther Gal-Or 368A Mervis Hall 648-1722 esther@katz.pitt.edu Secretary: Laura Trahan 224 Mervis Hall

648-1541

ltrahan@katz.pitt.edu

#### **Text:**

Jean Tirole, The Theory of Industrial Organization, The MIT Press. 1988.

## **Supplementary Reading:**

Gibbons, Robert, *Game Theory for Applied Economists*, Princeton, NJ: Princeton University Press, 1992.

### **COURSE OUTLINE**

This course is a Ph.D. seminar on special topics of industrial organization. We focus attention on the structure and performance of markets that are imperfectly competitive. For this purpose we employ game theoretic models to discuss recent articles covering the following issues:

- 1) entry deterrence strategies and barriers to entry;
- 2) price and non-price competition;
- 3) vertical control;
- 4) market segmentation and price discrimination;
- 5) market equilibria with incomplete information.

The prerequisite for the course is a basic course in microeconomics.

### **Introduction** (Tirole, Chapter 11)

Game Theory
Market Structure, Conduct and Performance

#### **Static Models of Oligopoly** (Tirole, Chapter 5)

Allen, B. and J.F. Thisse, "Price Equilibria in Pure Strategies for Homogenous Oligopoly," *Journal of Economics and Management Strategy*, 1992, pp. 63-82.

Bulow, J.J. Geanakoplos, and P. Klemperer, "Multimarket Oligopoly: Strategic Substitutes and complements," *Journal of Political Economy* 93, 1985, pp. 488-511.

Davidson, C., and R. Deneckere, "Long Term Competition in Capacity, Short Run Competition in Price, and the Cournot Model," *Rand Journal of Economics* 17, 1986, pp. 404-415.

Gal-Or, E., "First and Second Mover Advantages," *International Economic Review* 26, 1985, pp. 649-653.

Kreps, D., and J. Scheinkman, "Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes," *Bell Journal of Economics* 14, 1983, pp. 326-337.

Salant, S.S. Switzer, and R. Reynolds, "Losses Due to Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium," *Quarterly Journal of Economics* 48, 1983, pp. 185-200.

## Dynamic Models of Oligopoly (Tirole, Chapters 6, 8)

Aghion, P. and P. Bolton, "Contracts as a Barrier to Entry," *American Economic Review*, 1987, pp. 388-401.

Bernheim, D. "Strategic Entry Deterrence of Sequential Entry into an Industry," *Rand Journal of Economics* 15, 1984, pp. 1-11.

Bolton, P. and D.S. Scharfstein, "A Theory of Predation Based on Problems in Financial Contracting," *American Economic Review*, 1990, pp. 93-106.

Chen, Z. and T. Ross, "Strategic Alliances, Shared Facilities, and Entry Deterrence," *Rand Journal of Economics* 31, 2000, pp. 326-344

Cooper, T., "Most-Preferred-Customer Pricing and Tacit Collusion," *Rand Journal of Economics* 17, 1986, pp. 377-388.

Dell'Ariccia, G, E. Friedman, and R. Marquez, "Adverse Selection As A Barrier To Entry In The Banking Industry," *Rand Journal of Economics* 30, 1999, pp. 515-534.

Dixit, A., "The Role of Investment in Entry Deterrence," *Economic Journal* 90, 1980, pp. 95-106.

González-Maestre, M., "Divisionalization and Delegation in Oligopoly," *Journal of Economics & Management Strategy*, 9, 2000, pp. 321-338.

Hviid, M. and G. Shaffer, "Hassle Costs: The Achilles' Heel of Price-Matching Guarantees," *Journal of Economics & Management Strategy* 8, 1999, pp. 489-521.

Innes, R. and R.J. Sexton, "Strategic Buyers and Exclusionary Contracts," *American Economic Review*, 1994, pp. 566-584.

Judd, K., "Credible Spatial Preemption," Rand Journal of Economics 16, 1985, pp. 153-166.

Marx, L. and G. Shaffer, "Predatory Accommodation: Below-Cost Pricing Without Exclusion In Intermediate Goods Markets," *Rand Journal of Economics* 30, 1999, pp. 22-43.

Spiegel, Y., "Horizontal Subcontracting," Rand Journal Of Economics 24, 1993, pp. 570-590.

Yuan, L., "Product Differentiation, Strategic Divisionalization, and Persistence of Monopoly," *Journal of Economics & Management Strategy* 8, 1999, pp. 581-602.

## **Product Differentiation: Price and Non-Price Competition** (Tirole, Chapters 2, 7)

Allen, F., "Reputation and Product Quality," Rand Journal Of Economics 15, 1984, pp. 311-327.

Baye, M. and J. Morgan, "Information Gatekeepers on the Internet and the Competitiveness of Homogenous Product Markets," *American Economic Review* 91, 2001, pp. 454-474.

Bester, H., "Quality Uncertainty Mitigates Product Differentiation," *Rand Journal Of Economics* 29, 1998, pp. 828-844.

Church, J. and N. Gandal, "Complementary Network Externalities and Technological Adoption," *International Journal of Industrial Organization*, 1993, pp. 239-260.

Eaton, C. and N. Schmitt, "Flexible Manufacturing and Market Structure," *American Economic Review*, 1994, pp. 875-888.

Economides, N., "Desirability of Compatibility in the Absence of Network Externalities," *American Economic Review*, 1989, pp. 1165-1181.

Gabszewicz, J.J. and I. Grilo, "Price Competition when Consumers are Uncertain About Which Firm Sells Which Quality," *Journal of Economics and Management Strategy* 1, 1992, pp. 629-650.

Gabszewicz, J.J. and J.F. Thisse, "Price Competition, Quality and Income Disparities," *Journal of Economic Theory* 20, 1979, pp. 340-359.

Gal-Or, E. and A. Dukes, "Minimum Differentiation in Commercial Media Markets," *Journal of Economics and Management Strategy* 12, 2003, pp.291-325.

Dukes, A. and E. Gal-Or, "Negotiations and Exclusivity Contracts for Advertising," *Marketing Science*, 2003, pp. 222-245.

Grossman, G., and C. Shapiro, "Informative Advertising with Differentiated Products," *Review of Economic Studies* 51, 1984, pp. 63-82.

Matutes, C. and P. Regibeau, "Mix and Match: Product Compatibility without Network Externalities," *Rand Journal of Economics*, 1988, pp. 221-234.

### **Price Discrimination** (Tirole, Chapter 3)

Caminal, R. and C. Matutes, "Endogenous Switching Costs in a Duopoly Model," *International Journal of Industrial Organization*, 1990, pp. 353-373.

Che, Y. "Customer Return Policies for Experience Goods," *Journal of Industrial Economics*, 1996, pp. 17-24.

Chen, Y., "Oligopoly Price Discrimination and Resale Price Maintenance," *Rand Journal of Economics* 30, 1999, pp. 441-455.

Chen, Y., "Paying Customers to Switch," *Journal of Economics and Management Strategy* 6, 1997, pp. 877-897.

DeGraba, P., "Why Lever Into a Zero-Profit Industry: Tying, Foreclosure, and Exclusion," *Journal of Economics and Management Strategy* 5, 1996, pp. 433-447.

Deneckere, R.J. and P.R. McAfee, "Damaged Goods," *Journal of Economics and Management Strategy*, 1996, pp. 149-174.

Gal-Or, E., "Evaluating the 'Leverage Theory' of Product Bundling in the Context of negotiations," Working Paper 2000 (Forthcoming *Journal of Business*.)

Harrison, M. and Kline, J., "Quantity Competition with Access Fees," *International Journal of Industrial Organization* 19, 2001, pp. 345-373.

Shaffer, G. and Zhang, Z., "Pay to Switch or Pay to Stay: Preference-Based Price Discrimination in Markets with Switching Costs," *Journal of Economics & Management Strategy* 9, 2000, pp. 397-424.

Varian, H., "A Model of Sales," American Economic Review 70, 1980, pp. 651-659.

Winston, M., "Tying, Foreclosure, and Exclusion," *American Economic Review 80*, 1990, pp. 837-859.

# Vertical Control and the Theory of the Firm (Tirole, Introduction and Chapter 4)

Baron, D.P. and R.B. Myerson, "Regulating a Monopolist with Unknown Costs," *Econometrica*, 1982, pp. 911-930.

Brander, J.A. and T.R. Lewis, "Oligopoly and Financial Structure: The Limited Liability Effect," *American Economic Review*, 1986, pp. 956-970.

Fershtman, C. and K.L. Judd, "Equilibrium Incentives in Oligopoly," *American Economic Review*, 1987, pp.927-940.

Gal-Or, E., "A Common Agency with Incomplete Information," *Rand Journal of Economics* 22, 1991, pp. 274-286.

Hart, O., and J. Moore "Property Rights and the Nature of the Firm," *Journal of Political Economy* 98, 1990, pp. 1119-1158.

Holmstrom, B. and P.R. Milgrom, "Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership and Job Design," *Journal of Law, Economics, and Organization*, 1991, pp.24-52.

Itoh, H., "Cooperation in Hierarchical Organization: An Incentive Perspective," *The Journal of Law, Economics, and Organization*, 1992, pp. 321-345.

Khalil, F., "Auditing Without Commitment," Rand Journal of Economics 28, 1997, pp. 629-640.

Kranton, R. and Minehart, D., "Network Versus Vertical Integration," *Rand Journal of Economics* 31, 2000, pp. 570-601.

Levitt, S. and Snyder, C., "Is No News Bad News? Information Transmission and the Role Of "Early Warning" in the Principal-Agent Model," *Rand Journal of Economics* 28, 1997, pp. 641-661.

Predergast, "A Theory of 'Yes Men'," American Economic Review 83, 1993, pp. 757-770.

Rey, P. and J. Tirole, "The Logic of Vertical Restraints," *American Economic Review* 76, 1986, pp. 921-939.

Spiegel, Y., "The Role of Debt in Procurement Contracts," *Journal of Economics & Management Strategy* 5, 1996, pp. 379-407.

Wang, G., "Regulating an Oligopoly with Unknown Costs," *International Journal of Industrial Organization* 18, 2000, pp. 813-825.

Zábojník, J., "Sales Maximization and Specific Human Capital," *Rand Journal of Economics* 29, 1998, pp. 790-802.

# **Information and Strategic Behavior** (Tirole, Chapter 9)

Cabral, L., "Stretching Firm and Brand Reputation," *Rand Journal of Economics* 31, 2000, pp. 658-673.

Crawford, V. and J. Sobel, "Strategic Information Transmission," *Econometrica* 50, 1982, pp. 1431-1451.

Gal-Or, E., "First Mover Disadvantages with Private Information," *Review of Economic Studies* 54, 1987, pp. 279-292.

Gal-Or, E., "The Advantage of Imprecise Information," *Rand Journal of Economics*, 1988, pp. 267-275.

Gertner, Gibbons, and Sharfstein, "Simultaneous Signaling to the Capital and Product Markets," *Rand Journal of Economics* 19, 1988, pp. 173-190.

Glazer, I. and R. Israel, "Managerial Incentives and Financial Signaling in Product-Market Competition," *International Journal of Industrial Organization*, 1990, pp. 271-280.

Lizzeri, A., "Information Revelation and Certification Intermediaries," *Rand Journal of Economics* 30, 1999, pp. 214-231.

Mirman, L.J., L. Samuelson, and A. Urbano, "Monopoly Experimentation," *International Economic Review*, 1993, pp. 549-565.

Shieh, S., "Price and Money-Back Guarantees as Signals of Product Quality," *Journal of Economics & Management Strategy* 5, 1996, pp. 361-377.