

COLUMBIA UNIVERSITY
Department of Economics
Industrial Organization II, G6254
Spring 2005
M 11-12:50, IAB 902
Professor Kyle Bagwell

Required Text:

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

Students taking this course are assumed to have taken Industrial Organization I (Economics G6253). Industrial Organization I provides an overview of modern Industrial Organization. In Industrial Organization II, we will study some particular topics in greater detail.

The first two lectures (topic 1) are organized by Professor Riordan. The remainder of the course is organized by Professor Bagwell.

1. Empirical Models of Vertical Foreclosure

- *Chipty, T., "Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry," *American Economic Review*, 91, 2001, 428-453.
- *Hastings, J. and R. Gilbert, "Market Power, Vertical Integration, and the Wholesale Price of Gasoline," working paper, June 2002;
http://aida.econ.yale.edu/~jh529/RRC_Revision0604.pdf.
- *Hortacsu, A. and C. Syverson, "Cementing Relationships: Vertical Integration, Foreclosure, Productivity, and Prices," working paper, June 2004;
<http://home.uchicago.edu/~syverson/virmcandcement.pdf>.
- *Martin, S., H.-T. Norman, and C. Snyder, "Vertical Foreclosure in Experimental Markets," *RAND Journal of Economics*, 32, 2001, 466-49.

2. Background and Introduction

- *Tirole, Introduction and Chapter 11
- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Sections 1-3.
<http://www.columbia.edu/~kwb8/Adchap2003-combined.pdf>
- *Bagwell, K. and A. Wolinsky, "Game Theory and Industrial Organization," in R.J. Aumann and S. Hart (eds.), *Handbook of Game Theory with Economic Applications*, Vol. 3, 2002, Amsterdam: North-Holland, 1851-95.
- Fisher, F., "Games Economists Play: A Noncooperative View," *RJE* 20, 1987, 113-124.
- Fudenberg, D. and J. Tirole, " chapters 1, 3, 8, 9 in *Game Theory*, 1991.
- Schmalensee, R., "Industrial Organization: An Overview," *EJ* 98, 1988, 643-681.
- Shapiro, C., "The Theory of Business Strategy," *RJE* 20, 1989, 125-137.

3. Oligopoly Theory: Commitment and Two-Stage Games

- *Tirole, Chapter 5.
- *Bagwell, K. and A. Wolinsky, "Game Theory and Industrial Organization," in R.J. Aumann and S. Hart (eds.), *Handbook of Game Theory with Economic Applications*, Vol. 3, 2002, Amsterdam: North-Holland, 1851-95.
- *Shapiro, C., "Theories of Oligopoly Behavior," in R. Schmalensee and R. Willig (eds.), *Handbook of Industrial Organization*, 1989, Amsterdam: North Holland.
- Bagwell, K., "Commitment and Observability in Games," *GEB* 8, 1995, 271-280.
- Brander, J. and B. Spencer, "Export Subsidies and International Market Share Rivalry," *JIE* 18, 1985, 83-100.
- Eaton, J. and G. Grossman, "Optimal Trade and Industrial Policy under Oligopoly," *QJE* 51, 1986, 383-406.
- Fershtman, C. and K. Judd, "Equilibrium Incentives in Oligopoly," *AER*, December 1987.

- Kreps, D. and J. Scheinkman, "Quantity Precommitment and Bertrand Competition Yield Cournot Outcomes," *BJE* 14, 1983, 326-337.
- Maggi, G., "Strategic Trade Policies under Uncertainty about the Mode of Inter-Firm Competition," *AER* 1996.
- Maggi, G., "The Value of Commitment with Imperfect Observability and Private Information," *RJE*, 30, 555-74, Winter 1999.
- van Damme, E. and S. Hurkens, "Games with Imperfectly Observed Commitment," *GEB*, 21, 1997, 282-308.
- Vardy, F., "The Value of Commitment in Stackelberg Games with Observation Costs," *GEB*, 49.2, November 2004, 374-400.
- 4. Collusion: Private Information**
- *Athey, S., Bagwell, K. and C. Sanchirico, "Collusion and Price Rigidity," *RES.*, 71.2, 2004, 317-49.
- *Athey, S. and Bagwell, K., "Optimal Collusion with Private Information," *RJE*, 32.3, Autumn 2001, 428-65.
- *Athey, S. and K. Bagwell, "Collusion with Persistent Cost Shocks," 2004.
- *Skrzypacz, A. and H. Hopenhayn, "Tacit Collusion and Repeated Auctions," *Journal of Economic Theory*, January 2004.
- Abreu, D., D. Pearce, and E. Stacchetti, "Optimal Cartel Equilibria with Imperfect Monitoring," *JET* 39, 1986, 251-269.
- Abreu, D., D. Pearce, and E. Stacchetti, "Toward a Theory of Discounted Repeated Games with Imperfect Monitoring," *Ecta*, 58.5, 1041-63.
- Baskar, V. and E. van Damme, "Moral Hazard and Private Monitoring," *JET* 102, 2002, 17-39.
- Comte, O., "Communication in Repeated Games with Private Monitoring," *Ecta* 66, 1998, 597-626.
- Fudenberg, D., Levine, D. and E. Maskin, "The Folk Theorem with Imperfect Public Information," *Ecta* 62, 997-1040, 1994.
- Kandori, M. and Matsushima, H., "Private Observation, Communication and Collusion," *Ecta* 66, 627-652, 1998.
- Stigler, G., "A Theory of Oligopoly," *JPE* 72, 1964, 44-61.
- 5. Advertising**
- Advertising and Welfare**
- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Section 4.
- Becker, G. S. and K. M. Murphy, "A Simple Theory of Advertising as a Good or Bad," *QJE*, 1993, 942-64.
- Dixit, A. and V. Norman, "Advertising and Welfare," *BJE*, 9.1, 1-17.
- Dorfman, R. and P.O. Steiner, "Optimal Advertising and Optimal Quality," *AER*, 44.5, 826-36.
- Advertising and Markets with Imperfect Price Information**
- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Section 5.
- *Tirole, Chapter 7.
- Bagwell, K. and G. Ramey, "Coordination Economies, Advertising and Search Behavior in Retail Markets," *AER* 84.3, 1994, 498-517.
- Benham, L., "The Effect of Advertising on the Price of Eyeglasses," *JLE* 15, 1972, 337-352.
- Butters, G., "Equilibrium Distribution of Sales and Advertising Prices," *RES* 44, 1977, 465-491.
- Grossman, G. and C. Shapiro, "Informative Advertising with Differentiated Products," *RES* 51, 1984, 63-82.
- Nelson, P., "Information and Consumer Behavior," *JPE* 78, 1970, 311-329.
- Robert, J. and D. Stahl, "Informative Price Advertising in a Sequential Search Model," *Ecta* 61, 1993, 657-686.
- Salop, S. and J. Stiglitz, "Bargains and Ripoffs: A Model of Monopolistically Competitive Price Dispersion," *RES* 44, 1977, 493-510.
- Stigler, G., "The Economics of Information," *JPE* 69, 1961.
- Varian, H., "A Model of Sales," *AER* 70, 1980, 651-659.

Advertising and Markets with Imperfect Quality Information

- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Section 6.
- *Tirole, Chapter 2.
- Kihlstrom, R. and M. Riordan, "Advertising as a Signal," *JPE* 92, 1984, 427-450.
- Klein, B. and K. Leffler, "The Role of Market Forces in Assuring Contractual Performance," *JPE* 1981, 615-641.
- Milgrom, P. and J. Roberts, "Price and Advertising Signals of Product Quality," *JPE* 94, 1986, 796-821.
- Nelson, P., "Advertising as Information," *JPE* 81, 1974, 729-754.
- Shapiro, C., "Premiums for High Quality as Returns to Reputation," *QJE*, 1983, 659-679.

Advertising and Sunk Costs

- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Section 9.
- Bresnahan, T., "Sutton's Sunk Costs and Market Structure: Price Competition, Advertising and the Evolution of Concentration," *RJE*, 23.1, 137-52.
- Schmalensee, R., "Sunk Costs and Market Structure: A Review Article," *JIE*, 40.2, 125-34.
- Sutton, J., *Sunk Costs and Market Structure*, 1991, Cambridge: The MIT Press.

6. Entry Deterrence and Accommodation

- *Tirole, Chapter 8, 9.
- *Bagwell, K., "The Economic Analysis of Advertising," 2003, Section 7.
- *Bagwell, K. and A. Wolinsky, "Game Theory and Industrial Organization," in R.J. Aumann and S. Hart (eds.), *Handbook of Game Theory with Economic Applications*, Vol. 3, 2002, Amsterdam: North-Holland, 1851-95.
- *Wilson, R., "Strategic Models of Entry Deterrence," *Handbook of Game Theory*, Amsterdam: North Holland.
- Bagwell, K. and G. Ramey, "Advertising and Limit Pricing," *RJE* 19, 1988, 59-71.
- Bulow, J., J. Geanakoplos, and P. Klemperer, "Multimarket Oligopoly: Strategic Substitutes and Complements," *JPE* 93, 1985, 488-511.
- Dixit, A., "The Role of Investment in Entry Deterrence," *EJ* 90, 1980, 95-106.
- Eaton, C. and R.G. Lipsey, "Exit Barriers are Entry Barriers: The Durability of Capital as a Barrier to Entry," *BJE* 11, 721-729.
- Fudenberg, D. and J. Tirole, "The Fat Cat Effect, the Puppy Dog Ploy, and the Lean and Hungry Look," *AER P&P* 74, 1984, 361-368.
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- Schmalensee, R., "Product Differentiation Advantages of Pioneering Brands," *AER* 72, 1982, 349-365.
- Spence, M., "Entry, Capacity, Investment and Oligopolistic Pricing," *BJE* 8, 1977, 534-544.
- Spence, M., "Contestable Markets and the Theory of Industrial Structure: A Review Article," *JEL* 21, 1983, 981-990.