

*Economics 220B*  
**REGULATION & ANTITRUST**

**Description.** This is the second of two graduate courses in industrial organization. It will cover regulation and antitrust policy, concentrating on control of natural and artificial monopoly in theory and in practice. Emphasis will be on theoretical developments although an occasional empirical study or case study will illustrate key points.

**Instructor.** Glenn Woroch, 669 Evans, 642-4308, glenn@econ.berkeley.edu. Office hours: Wednesday, 2:30-4:00 PM.

**Textbooks.** No textbook is assigned for this course, but several books cover large portions of the material and have been put on reserve:

Sandy Berg and John Tschirhart, Natural Monopoly Regulation, Cambridge University Press.  
Alfred Kahn, The Economics of Regulation, volumes I and II, (2nd edition) John Wiley, 1997.  
Jean-Jacques Laffont and Jean Tirole, A Theory of Incentives in Procurement and Regulation, 1993.  
William Sharkey, The Theory of Natural Monopoly, Cambridge University Press, 1982.  
Daniel Spulber, Regulation and Markets, MIT Press, 1991.  
Kenneth Train, Optimal Regulation, MIT Press, 1991.

**Assignments.** Students will select a paper, either one of the optional readings or a paper that we agree upon, and present it to the class. Each student will also write a paper of moderate length on a topic related in some manner to the economics of regulation. I will distribute a list of suggested topics shortly. Lastly, there will be a final exam.

**READING LIST**

\* - required, in reader.

+ - recommended for presentation.

**I. NATURAL MONOPOLY AND ITS REGULATION**

**1. Natural Monopoly**

- \* Panzar, J., "Technological determinants of firm and industry structure," Chapter 1 in Handbook of Industrial Organization, (Vol. 1) North-Holland, 1989.
- \* Faulhaber, G., "Cross-subsidization: pricing in public enterprises," American Economic Review, 1975.
- Baumol, W., "On the proper cost tests for natural monopoly in a multiproduct industry," American Economic Review, December 1977.
- Faulhaber, G., and S. Levinson, "Subsidy free prices and anonymous equity," American Economic Review, 1981.
- + Evans, D. and J. Heckman, "Multiproduct cost function estimates and natural monopoly tests for the Bell System," in Breaking Up Bell, edited by David Evans, 1983.

**2. Efficient Pricing**

- \* Baumol, W. and D. Bradford (1970), "Optimal departures from marginal cost pricing," American Economic Review, June.
- \* Willig, R., "Pareto-superior nonlinear outlay schedules," Bell Journal of Economics, 1979.
- Baumol, W., E. Bailey and R. Willig, "Weak invisible hand theorems on the sustainability of prices in a multiproduct monopoly," American Economic Review, 1977.
- Braeutigam, R., "Optimal policies for natural monopoly," in Handbook of Industrial Organization, (Vol. 2) 1989.
- + Brock, W., and W.D. Dechert, "Dynamic Ramsey pricing," William Brock and W. D. Dechert,

International Economic Review, October 1985.

- + Braeutigam, R., "Optimal pricing with intermodal competition," American Economic Review, 38-49, 1979.
- + Panzar, J., "The Pareto domination of usage-sensitive pricing," in Proceedings of the 6th Telecommunications Policy Research Conference, H. Dordick (ed.) 1979.

### **3. Reality Check: Alternative Explanations of Regulatory Policy**

- \* Stigler, G., "The Theory of Economic Regulation," The Bell Journal of Economics, 1971.
- \* Peltzman, S., "The economic theory of regulation after a decade of deregulation," Brookings Papers: Microeconomics, 1989.
- \* Joskow, P., "Pricing decision of regulated firms: a behavioral approach," Bell Journal of Economics, 1973.
- Peltzman, S., "Towards a more general theory of regulation," Journal of Law & Economics.
- Noll, R., "Economic perspectives on the politics of regulation," in Handbook of Industrial Organization (Vol. 2) 1989.
- Posner, R., "Taxation by regulation," Bell Journal of Economics, 1971.
- + Winston, C., "Economic deregulation: days of reckoning for microeconomists," Journal of Economic Literature, September 1993.

## **II. REGULATION IN PRACTICE**

### **1. Rate of Return Regulation**

- \* Baumol, W. and A. Klevorick, "Input choices and rate of return regulation: an over of the discussion," Bell Journal of Economics, 1970.
- \* Averch, H. and L. Johnson, "Behavior of the firm under regulatory constraint," American Economic Review, December, 1962.
- \* Spence, A.M., "Monopoly, quality and regulation," Bell Journal of Economics, Autumn 1975.
- + Petersen, C., "An empirical test of regulatory effects," Bell Journal of Economics, Spring 1975.
- + Bailey, E., "Regulation and innovation," Journal of Public Economics, December 1974.

### **2. Contracting vs. Administration**

- \* Demsetz, H., "Why regulate utilities?" Journal of Law & Economics, 1968.
- \* Goldberg, V., "Regulation and administered contracts," Bell Journal of Economics, 1976.
- \* Williamson, O., "Franchise bidding for natural monopoly: in general and with respect to CATV," Bell Journal of Economics, 1976."
- + Zupan, M. "The efficacy of franchise bidding schemes in the case of cable TV: Some systematic evidence," Journal of Law and Economics, October 1989.

### **3. Price Cap and Benchmark Regulation**

- \* Brennan, T., "Regulation by capping prices," Journal of Regulatory Economics, 1989.
- \* Brauetigam, R., and J. Panzer, "Effects of the change from rate of return to price cap regulation," American Economic Review, 1993.
- \* Shleifer, A. "A theory of yardstick competition," Rand Journal of Economics, 1985.
- Vogelsang, I., "Price cap regulation of telecommunications services: a long-run," Rand Report, 1988.
- + Cabral, L. And M. Riordan, "Incentives for cost reduction under price cap regulation," Journal of Regulatory Economics, 1989.
- + Sappington, D., and D. Sibley, "Strategic nonlinear pricing under price-cap regulation," Rand Journal of Economics, Spring 1992.
- + Armstrong, M., S. Cowan and J. Vickers, "Nonlinear pricing and price cap regulation," Journal of Public Economics, September 1995.

### III. DESIGN OF OPTIMAL REGULATORY MECHANISMS

#### 1. Iterative and Dynamic Mechanisms

- \* Vogelsang, I. and J. Finsinger, "A regulatory adjustment process for optimal pricing by multiproduct monopoly firms, Bell Journal of Economics, 1979.
- \* Sappington, D., "Strategic firm behavior under a dynamic regulatory adjustment process," Bell Journal of Economics, Spring, 1980.
- + Salant, D., and G. Woroch, "Trigger price regulation," Rand Journal of Economics, Spring 1992.
- + Gilbert, R., and D. Newbery, "The dynamic efficiency of regulatory constitutions," Rand Journal of Economics, Winter 1994.
- + Blackmon, G., and R. Zeckhauser, "Fragile commitments and the regulatory process," Yale Journal on Regulation, 9:1, Winter, 1992.
- + Logan, J., R. Masson and R. Reynolds, "Efficient regulation with little information: reality in the limit?" International Economic Review, 30:4 November 1989.

#### 2. Agency Approach

- \* Loeb, M., and W. Magat, "A decentralized method for utility regulation," Journal of Law & Economics, 1979.
- \* Baron, D., and R. Myerson, "Regulating a monopolist with unknown costs," Econometrica, July 1982.
- \* Laffont, J.-J., "The new economics of regulation ten years after," Econometrica, 1994.
- + Laffont, J.-J., and J. Tirole, "Using cost observation to regulate firms," Journal of Political Economy, 1986.
- + Baron, D., "Design of regulatory mechanisms and institutions," in Handbook of Industrial Organization, (Vol. 2), 1989.
- + Lewis, T., and D. Sappington, "Regulating a monopolist with unknown demand," American Economic Review, December 1988.
- + Wolak, F., "An econometric analysis of the asymmetric information regulator-utility interaction," draft.

### IV. DEREGULATION

#### 1. Regulation with Horizontal Competition

- + Auriole, E., and J.-J. Laffont, "Regulation by duopoly," Journal of Economic Management and Strategy, 1993.
- + Riordan, M., "Regulation and preemptive technology adoption," Rand Journal, Autumn 1992.
- + Biglaiser, G., and A. Ma, "Regulating a dominant firm: unknown demand and industry structure." Rand Journal of Economics, Spring 1995.

#### 2. Regulation with Vertical Competition

- \* Laffont, J.-J. and J. Tirole, "Optimal bypass and creamskimming," American Economic Review, 1990.
- \* Panzar, J., "Sustainability, efficiency and vertical integration," in Regulated Industries and Public Enterprise, edited by Paul Kelindorfer and Bridger Mitchell, 1979.
- + Vickers, J., "Competition and regulation in vertically-related markets," Review of Economic Studies, January 1995.
- + Baumol, W. "Some Subtle Pricing Issues in Railroad Regulation," International Journal of Transport

- Economics, August 1983.
- + Gilbert, R., and M. Riordan, "Regulating complementary products: a problem of institutional choice," Rand Journal of Economics, 1995.
  - + Laffont, J.-J. and J. Tirole, "Access pricing and interconnection," European Economic Review, 1994.

## **VI. ANTITRUST POLICY**

### **1. Predation**

- \* McGee, John, (1958), "Predatory Price Cutting: The Standard Oil (N.J.) Case," Journal of Law and Economics, pp. 137-169.
- \* Ordover, J., and G. Saloner, "Predation, monopolization and antitrust," chapter 9 in Handbook of Industrial Organization, (Vol.2) 1989.
- Milgrom, P., and J. Roberts, "Limit pricing and entry under incomplete information: an equilibrium analysis," Econometrica, 1982.
- Ordover, J., and R. Willig, "An economic definition of predation: pricing and product innovation," Yale Law Journal, 1981.

### **2. Merger to Monopoly**

- \* Department of Justice, "The Merger Guidelines."
- \* Farrell, J., and C. Shapiro, "Horizontal mergers," American Economic Review.
- + Baker, J., and T. Bresnahan, (1985), "The Gains from Merger or Collusion in Product Differentiated Industries," Journal of Industrial Economics., 33:4, pp. 427.

### **3. Exclusion and Foreclosure**

- \* Krattenmaker, T., and S. Salop, "Anticompetitive exclusion: raising rivals' costs to achieve power over price," Yale Law Journal, 1986.
- \* Ordover, J., G. Saloner, and S. Salop, "Equilibrium Vertical Foreclosure," American Economic Review, 1990.
- Ordover, J., A. O. Sykes and R. Willig, "Nonprice Anticompetitive Behavior by Dominant Firms toward the Producers of Complementary Products," in Antitrust Regulation: Essays in Memory of John J. McGowan, Franklin Fisher (ed.), 1985
- Whinston, M., "Tying, Foreclosure, and Exclusion," American Economic Review, 1990.
- + Salinger, M., "Vertical mergers and market foreclosure," Quarterly Journal of Economics, 1988.
- + Economides, N., and G. Woroch, "Interconnection and foreclosure of network competition," draft, 1995.