

**BOSTON COLLEGE**  
**Department of Economics**

**EC854**

**Industrial Organization**

Frank Gollop  
McGuinn 519

Fall 2001

Office Hours: Tuesday and Thursday 3:00-4:30

Texts: Kwoka, John E. and Lawrence J. White (eds). The Antitrust Revolution.  
New York: Oxford University Press, 1999.

Breit, William and Kenneth Elzinga. The Antitrust Casebook (3rd edition).  
Chicago: Dryden Press, 1996.

Grading:

First Midterm	20%
Second Midterm	25%
Class Presentations	15%
Final Exam	40%

**ANTITRUST ECONOMICS**

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|---|------------|
| I. Introduction/Antitrust Law Overview                    | Sept 4     |
| II. Monopoly and Dominant Firm Behavior                   |            |
| - Market Concentration and Barriers to Entry              | Sept 6     |
| - Dominant Firm Behavior                                  |            |
| Price Leadership  | Sept 6-11  |
| Pricing to Deter Entry                                    | Sept 11    |
| Non-Price Strategies to Deter Entry                       | Sept 13    |
| - Antitrust Cases   | Sept 13-20 |
| III. Oligopoly: Interdependence and Non-Cooperative Games |            |
| - Traditional Marginal Analysis                           | Sept 25-27 |
| - Game Theory   | Sept 27    |
| - Antitrust Cases   | Oct 2      |
| FIRST MIDTERM (45 minutes)                                | Oct 4      |
| IV. Oligopoly: Collusion and Cooperative Games            |            |
| - Methods of Achieving a Collusive Outcome                | Oct 4-11   |
| - Antitrust Cases   | Oct 11-16  |
| V. Mergers  | Oct 18     |

VI. Price Discrimination	Oct 23
VII. Predatory Pricing	Oct 23-25
VIII. Vertical Restraints	
- Vertical Integration	Oct 30
- Tying and Exclusive Dealing	
Theory	Oct 30
Antitrust Cases	Nov 1
- Territorial and Customer Restrictions and RPM	
Theory	Nov 6
Antitrust Cases	Nov 8
SECOND MIDTERM	Nov 13
IX. Microsoft (Monopolization/Predatory Pricing/Vertical Practices)	Nov 15-27

#### ISSUES IN REGULATORY ECONOMICS

X. Evolution of Rate Regulation	Nov 29
XI. Electric Power	Dec 4
- Natural Monopoly	
- Deregulating Natural Monopoly	
XII. Telecommunications	Dec 6

## SYLLABUS

## ANTITRUST ECONOMICS

## I. Introduction/Antitrust Law Overview

- Waldman and Jensen, Chapter 18 (pp. 557-62).  
 Breit and Elzinga, pp. 1-8.  
 Kwoka and White, pp. 1-5.  
 Kovacic, William E. and Carl Shapiro, "Antitrust Policy: A Century of Economic and Legal Thinking," The Journal of Economic Perspectives, 15 (Winter 2000), pp. 43-60.  
 Mueller, D.C., "Lessons from the United States's Antitrust History," International Journal of Industrial Organization, 14 (June 1996), pp. 415-28 and 435-39.  
 \*Barnes, David W., "Antitrust, the Rule of Reason, and Democracy," Review of Industrial Organization (March 1999), pp. 115-22.  
 \*Cutler, D.M. and L.H. Summers, "The Costs of Conflict Resolution and Financial Distress: Evidence from the Texaco-Pennzoil Litigation," Rand Journal, 19 (Summer 1988), pp. 157-72.

## II. Monopoly and Dominant Firm Behavior

## Market Concentration and Barriers to Entry:

- Waldman and Jensen, Chapters 4 (pp. 90-102) and 5 (pp. 126-32, 137-47, and 152-57).  
 Kwoka and White, pp. 8-12 and Case 1.  
 \*Evans, William and Ioannis Kessides, "Localized Market Power in the U.S. Airline Industry," Review of Economics and Statistics, 75 (February 1993), pp. 66-75.

## Dominant Firm Behavior:

## Price Leadership

- Waldman and Jensen, Chapter 6 (pp. 167-70 and 177-79) and Chapter 7 (pp. 212-18).

## Pricing to Deter Entry:

- Waldman and Jensen, Chapter 10 (pp. 278-91).

## Non-Price Strategies to Deter Entry:

- Waldman and Jensen, Chapter 11 (pp. 318-27 and 334-41).  
 Salop, Steven and David Scheffman, "Raising Rivals' Costs," AEA Papers and Proceedings, 73 (May 1983), pp. 267-71.  
 Blair, Roger D. and Jill Boylston Hendon, "United Shoe Machinery and the Antitrust Significance of 'Free' Service," Review of Industrial Organization, 17, (November 2000), pp. 301-11.  
 \*Granitz, Elizabeth and Benjamin Klein, "Monopolization by 'Raising Rivals' Costs: The Standard Oil Case," Journal of Law and Economics, 39 (April 1996), pp. 1-47.

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\*Supplementary reading. Recommended but not required.

- \*Schmalensee, R., "Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry," Bell Journal, 9 (Autumn, 1978), pp. 305-327.
- \*Masten, Scott and Edward Snyder, "U.S. versus United Shoe Machinery Corp.: On the Merits," Journal of Law and Economics, 36 (April 1993), pp. 33-70.
- \*Reiffen, David and Andrew Kleit, "Terminal Railroad Revisited: Foreclosure of an Essential Facility or Simple Horizontal Monopoly," Journal of Law and Economics, 33 (October 1990), pp. 419-38.
- \*Perry, Martin, "Forward Integration by Alcoa: 1888-1930," Journal of Industrial Economics, 29 (September 1980), pp. 37-53.
- \*Spence, A.M., "Entry, Capacity, Investment, and Oligopolistic Pricing," Bell Journal, 8 (Autumn 1977), pp. 534-44.

#### Antitrust Cases:

- Waldman and Jensen, Chapters 10 (pp. 291-93) and 18 (pp. 562-69).
- Kwoka and White, Case 12.
- Breit and Elzinga, pp. 120-32, 173-214, 277-79 and 283-91.
- \*Rosenbaum, David and Meng-Hua Ye, "Attempts to Monopolize and the Determination of Specific Intent," Quarterly Review of Economics and Finance, 32 (Spring 1992), pp. 50-70.
- \*Kahai, Simran, David Kaserman, and John Mayo, "Is the 'Dominant Firm' Dominant? An Empirical Analysis of AT&T's Market Power," Journal of Law and Economics, 39 (October 1996), pp. 499-517.

### III. Oligopoly: Interdependence and Non-Cooperative Games

#### Traditional Marginal Analysis:

- Waldman and Jensen, Chapter 7 (pp. 183-212).
- Kwoka and White, pp. 12-14.
- Baumol, W.J., "Contestable Markets: An Uprising in the Theory of Industry Structure," American Economic Review, 72 (March 1982), pp. 1-15.

#### Game Theory:

- Waldman and Jensen, Chapter 6 (pp. 171-77).

#### Antitrust Cases

- Breit and Elzinga, pp. 78-84, 280-82, and 297-304.

### IV. Oligopoly: Collusion and Cooperative Games

#### Methods of Achieving a Collusive Outcome:

- Waldman and Jensen, Chapters 8 and 9.
- Hay, George A., "The Meaning of 'Agreement' under the Sherman Act: Thoughts from the 'Facilitating Practices' Experience," Review of Industrial Organization, 16 (March 2000), pp. 113-29.
- Genesove, David and Wallace Mullin, "Rules, Communication, and Collusion: Narrative Evidence from the Sugar Institute Case," The American Economic Review, 91 (June 2001), pp. 379-98.
- \*Kirby, Alison, J., "Trade Associations as Information Exchange Mechanisms," Rand Journal, 19 (Spring 1988), pp. 138-46.
- \*Bernheim, B.D. and M.D. Whinston, "Common Marketing Agency as a Device for Facilitating Collusion," Rand Journal, 16 (Summer 1985), pp. 269-81.

## Antitrust Cases:

- Waldman and Jensen, Chapters 18 (pp. 569-82).
- Breit and Elzinga, pp. 46-59.
- Kwoka and White, Cases 7, 8, 11, 12 and 13.
- Symposium: The Lysine Cartel. 5 articles in the Review of Industrial Organization, 18 (February 2001), pp. 1-52.
- \*Breit and Elzinga, pp. 14-45.
- \*Cyrenne, Philippe, "On Antitrust Enforcement and the Deterrence of Collusive Behavior," Review of Industrial Organization (May 1999), pp. 257-72.

## V. Mergers

- Waldman and Jensen, Chapter 19 (pp. 590-601).
- Kwoka and White, pp. 14-22
- Breit and Elzinga, pp. 411-36.

## Horizontal Mergers:

- Breit and Elzinga, pp. 133-49.
- Kwoka and White, Cases 5 and 6.
- \*Praeger, Robin, "The Effects of Horizontal Mergers on Competition: The Case of the Northern Securities Company, Rand Journal of Economics, 23, (Spring 1992), pp. 123-33.
- \*Gilbert, Richard, "The Role of Potential Competition in Industrial Organization," Journal of Economic Perspectives, 3 (Summer 1989), pp. 107-27.

## Vertical Mergers:

- \*Breit and Elzinga, pp. 215-16 and 227-32.
- Chipty, Tasneem, "Vertical Integration, Market Foreclosure, and Consumer Welfare in the Cable Television Industry," The American Economic Review, 91 (June 2001), pp. 428-53.
- \*Robinson, J., "Administered Pricing and Vertical Integration in the Hospital Industry," Journal of Law and Economics, 39 (April 1996), pp. 357-78.
- \*Blair, R.D. and Kaserman, D.L., "Vertical Integration, Tying, and Antitrust Policy," American Economic Review, 68 (June 1978), pp. 397-402.
- \*Ohta, H., and Greenhut, M., "Vertical Integration of Successive Oligopolies," American Economic Review, 69 (March 1979), pp. 137-141.

## Conglomerate Mergers:

- \*Matsusaka, John, "Takeover Motives During the Conglomerate Merger Wave," Rand Journal of Economics, 24 (Autumn 1993), pp. 357-79.
- \*Turner, D.F., "Conglomerate Mergers and Section 7 of the Act," Harvard Law Review (May 1965), pp. 1313-1395.
- \*Gollop, Frank and James Monahan, "A Generalized Index of Diversification: Trends in U.S. Manufacturing," Review of Economics and Statistics, 73 (May 1991), pp. 318-30.
- \*Markham, J.W., Conglomerate Enterprise and Public Policy, 1973.

## VI. Price Discrimination

- Waldman and Jensen, Chapters 14 and 19 (pp. 601-11).
- \*Breit and Elzinga, pp. 222-26 and 318-54.

- \*Borenstein, S., "Price Discrimination in Free-Entry Markets," Rand Journal, 16 (Autumn 1985), pp. 380-97.
- \*Edwards, C.D., The Price Discrimination Law. Brookings, 1959, Chapters 19 and 20. (This is a classic book.)

## VII. Predatory Pricing

- Waldman and Jensen, Chapter 10 (pp. 294-301).
- Baumol, William, "Predation and the Logic of the Average Variable Cost Test," Journal of Law and Economics, 39 (April 1996), pp. 49-72.
- Kwoka and White, Cases 9, and 10.
- \*Areeda, P. and Turner, D., "Predatory Pricing and Related Practices Under Section 2 of the Sherman Act," Harvard Law Review, 88 (February 1975), pp. 697-733.
- \*Anderson, Rod W. and Ronald N. Johnson, "Antitrust and Sales-Below-Cost Laws: The Case of Retail Gasoline," Review of Industrial Organization, (May 1999), pp. 189-204.
- \*Ordober, J. and Willig, R., "An Economic Definition of Predation: Pricing and Product Innovation," Yale Law Journal, 91 (November 1981), pp. 8-53.
- \*Burns, M., "Predatory Pricing and the Acquisition Cost of Competitors," Journal of Political Economy, 94 (April 1986), pp. 266-96.

## VIII. Vertical Restraints

### Vertical Integration:

- Waldman and Jensen, Chapter 15.
- Breit and Elzinga, pp. 215-22.
- Kwoka and White, Case 16.
- Gilbert, Richard, "Exclusive Dealing, Preferential Dealing, and Dynamic Efficiency," Review of Industrial Organization, 16 (March 2000), pp. 167-84.
- Rey, Patrick and Jean Tirole, "The Logic of Vertical Restraints," American Economic Review, 76 (December 1986), pp. 921-39.

### Tying and Exclusive Dealing:

#### Theory:

- Waldman and Jensen, Chapter 19 (pp. 611-17).
- \*Pittman, Russell, "Tying Without Exclusive Dealing," DOJ Economic Policy Office Discussion Paper (September 1984).

#### Antitrust Cases:

- Kwoka and White, Case 14.
- \*Breit and Elzinga, pp. 233-55.

### Territorial and Customer Restrictions and RPM:

#### Theory:

- Waldman and Jensen, Chapter 19 (pp. 617-22).
- Stewart, David and Scott Nelson, "Upholding Vertical Restraints," ABA Journal (July 1, 1988), pp. 36-43. [Will be distributed in class.]
- Ippolito, Pauline and Thomas Overstreet, "RPM: An Economic Assessment

of the FTC's Case against the Corning Glass Works," Journal of Law and Economics, 39 (April 1996), pp. 285-328.

\*Mueller, Willard, and Frederick Geithman, "An Empirical Test of the Free Rider and Market Power Hypotheses," Review of Economics and Statistics, 73 (May 1991), pp. 301-08.

\*Ippolito, Pauline, "Resale Price Maintenance: Empirical Evidence from Litigation," Journal of Law and Economics, 34 (October 1991), pp. 263-94.

\*Ornstein, Stanley and Dominique Hanssens, "Resale Price Maintenance: Output Increasing or Restricting? The Case of Distilled Spirits in the United States," Journal of Industrial Economics, 36 (Sept. 1987), pp. 1-18.

\*Sass, T. and D. Saurman, "Mandated Exclusive Territories and Economic Efficiency: An Empirical Analysis of the Malt-Beverage Industry," Journal of Law and Economics, 36 (April 1993), pp. 153-74.

Antitrust Cases:

Kwoka and White, Case 15.

\*Breit and Elzinga, pp. 359-61 and 372-82.

## IX. Microsoft Case

Gisser Micha and Mark Allen, "One Monopoly is Better Than Two: Antitrust Policy and Microsoft," Review of Industrial Organization, 19 (September 2001), pp. 211-25.

Symposia on the Microsoft Case in Economic Perspectives, 15 (Spring 2001).

Gilbert, Richard J. and Michael L. Katz, "An Economist's Guide to *U.S. v. Microsoft*."

Klein, Benjamin, "The Microsoft Case: What Can a Dominant Firm Do to Defend Its Market Position?"

Whinston, Michael, "Exclusivity and Tying in *U.S. v. Microsoft*: What We Know, and Don't Know."

Appellate Court Decision: *U.S. v. Microsoft* (June 2001)

Kwoka and White, Case 17.

## ISSUES IN REGULATORY ECONOMICS

### X. Evolution of Rate Regulation

Rate-of-Return Regulation:

Waldman and Jensen, (pp. 630-41).

Viscusi, W. Kip, "Economic Foundations of the Current Regulatory Reform Efforts," Journal of Economic Perspectives, 10 (3), (Summer 1996), pp. 119-34.

Marginal Cost Pricing (Peak-Load Pricing):

Viscusi, Vernon, and Harrington, Chapter 12, pp. 372-78.

\*Crew, Michael, Chitru Fernando, and Paul Kleindorfer, "The Theory of Peak Load Pricing" A Survey," Journal of Regulatory Economics, 8 (3), (November 1995), pp. 215-48.

Incentive Regulation:

### Price-Cap Regulation

Laffont, Jean-Jacques and Jean Tirole, "Creating Competition Through Interconnection" *Theory and Practice*, Journal of Regulatory Economics, 10 (3), (November 1996), pp. 227-56.

\*Crew, Michael and Paul Kleindorfer, "Incentive Regulation in the U.K. and the U.S.: Some Lessons," Journal of Regulatory Economics, 9 (3), (May 1996), pp. 211-25.

### Franchise Bidding

Viscusi, Vernon, and Harrington, Chapter 13.

Otsuka, Yasuji, "A Welfare Analysis of Local Franchise and Other Types of Regulation: Evidence from the Cable TV Industry," Journal of Regulatory Economics, 11 (2), (March 1997), pp. 157-80.

McAfee, R. Preston and John McMillan, "Analyzing the Airwaves Auction," Journal of Economic Perspectives, 10 (1), (Winter 1996), pp. 159-75.

## XI. Electric Power

### Natural Monopoly

Viscusi, Vernon, and Harrington, Chapter 11, pp. 330-45

Baumol, W.J., "On the Proper Cost Tests for Natural Monopoly in a Multiproduct Industry," American Economic Review, 67 (December 1977), pp. 809-822.

### Deregulating Natural Monopoly

Waldman and Jensen, pp. 652-53.

Viscusi, Vernon, and Harrington, Chapter 15, pp. 443-72.

Brennan, Timothy, "Drawing Lessons from the California Power Crisis," Resources, 144 (Summer 2001), pp. 8-12.

Hung-Po and Stephen Peck, "A Market Mechanism for Electric Power Transmission," Journal of Regulatory Economics, 10 (1), (July 1996), pp. 25-60.

Joskow, Paul L., "Restructuring, Competition and Regulatory Reform in the U.S. Electricity Sector," Journal of Economic Perspectives, 11 (Summer 1997), pp. 119-38.

Kwoka and White, Case 4.

## XII. Telecommunications

Waldman and Jensen, pp. 648-52.

Harris, Robert G. and C. Jeffrey Kraft, "Meddling Through: Regulating Local Telephone Competition in the United States," The Journal of Economic Perspectives, 11 (Fall 1997), pp. 93-112.

Abel, Jaison R. and Michael Clements, "Entry under Asymmetric Regulation," Review of Industrial Organization, 19 (September 2001), pp. 227-42.

Lehman, Dale E. and Dennis L. Weisman, "The Political Economy of Price Cap Regulation," Review of Industrial Organization, 16 (June 2000), pp. 343-56.