

**Agricultural and Resource Economics 358**  
**Industrial Organization: Empirical Analysis**  
**Spring 2006**

**Instructor:** Ronald W. Cotterill

**Reading List**

**NOTE:** This reading list is comprehensive. The course will not cover all topics. Readings that are usually covered are identified by an asterisk. Each year the class, to a certain extent determines the focus of this course, so assigned readings/topic areas of interest can and do change. This means the reading list may change during the semester.

**Required Text:** None

**Recommended Texts:**

Graduate

Martin, Stephen "Advanced Industrial Economics" 2<sup>nd</sup> edition. Blackwell: Oxford 2002 [Martin].

Church, Jeffrey and Roger Ware. *Industrial Organization: A Strategic Approach*. McGraw-Hill 2000.

Scherer, Frederick M. and David Ross *Industrial Market Structure and Economic Performance*, 3rd edition, Houghton Mifflin, 1990 [Scherer and Ross].

Carlton, Dennis W. and Jeffrey M. Perloff. *Modern Industrial Organization* (Glenview, ILL.: Scott Foresman and Co., 1990). [Carlton-Perloff].

Waterson, Michael. *Economic Theory of Industry*. Cambridge University Press: Cambridge, MA 1984.

Schmalensee, Richard and Robert Willig, eds. *Handbook of Industrial Organization*, 2 Vols. Princeton University, 1989.

Undergraduate

Greer, Douglas F. *Industrial Organization and Public Policy*, Macmillan Co. 1992, 3rd edition. [Greer].

Waldman, Don and Elizabeth Jensen. *Industrial Organization*, 2<sup>nd</sup> edition. Addison Wesley: Boston, 2001.

**Other Texts**

Bain, Joe S. *Industrial Organization*, 2nd edition, Wiley: New York, 1968.

Cobral, Luis B. *Readings in Industrial Organization*, Blackwell: Oxford, 2000.

Coffee, John C., Louis Lowenstein, Susan Rose-Ackerman. *Knights, Raiders and Targets*, Oxford University Press: New York, 1988.

Connor, John, Richard Rogers, Bruce Marion and Willard Mueller. *The Food Manufacturing Industries*, Lexington Books: Lexington, 1985.

Cotterill, Ronald W. *Competitive Strategy Analysis in the Food System* Westview Press: Boulder, 1993.

Goldschmid, Harvey J., H. Michael Mann, and J. Fred Western. *Industrial Concentration: The New Learning*, Little Brown: Boston 1974.

Kaynak, Erdner. *World Food Marketing Systems*, Butterworths: London, 1986.

Marion, Bruce Ed. *The Organization and Performance of the U.S. Food System*, Lexington Books: Lexington, MA 1985. [Red Book]

Marion, Bruce, Willard Mueller, Ronald Cotterill, Frederick Geithman and John Schmelzer. *The Food Retailing Industry*. Praeger Press: New York 1979.

Porter, Michael E. *Competitive Strategy*, Free Press: New York, 1980.

Stiglitz, Joseph E. and G. Frank Mathewson. *New Developments in the Analysis of Market Structure*, MIT Press: Cambridge Mass., 1986.

Tirole, Jean. *The Theory of Industrial Organization* (Cambridge, MA: MIT Press, 1988).

Wills, Robert, Julie Caswell, and John Culbertson, "Issues After a Century of Federal Competition Policy" Lexington Books: Lexington, 1987.

Vives, Xavier. *Oligopoly Pricing*, MIT Press: Cambridge 1999.

## **I. Introduction: Scope and Method of Industrial Organization**

Scherer, Ch. 1 "Introduction"

\*Martin, Ch. 1 "Introduction"

\*Greer, Introduction to Structure: What is Market Power? Chapter 4.

Mason, Edward S. "Price and Production Policies of Large-Scale Enterprise." *Amer. Economic Review, Supplement, Vol. 39, No. 1, 1939.*

Peteraf, Margaret A. 1993. "The Cornerstones of Competitive Advantage: A Resource-based View," *Strategic Management Journal* 14: 179-191.

## **II. Noncooperative Oligopoly Models – Theory and Tests Thereof**

A. Market Share, Concentration Relationships to Price Cost Margins (Profits)

## 1. Core of this unit

\*Scherer and Ross, Ch. 6 "Economic Theories of Oligopoly Pricing".

Cowling, K. and M. Waterson, "Price-cost Margins and Market Structure," *Economica* 43, pp. 267-74.

Clarke, R. and S. W. Davies, "Market Structure and Price-Cost Margins," *Economica* 49 (1982), pp. 277-87.

Clark, R., S. W. Davies, and M. Waterson, "The Profitability-Concentration Relation: Market Power or Efficiency?" *Journal of Industrial Economics*, Vol. XXXII, No. 4, June 1984, p. 435-450.

Jakubson, G., K. Jeong, D. Kim and R. Masson. "Superiority and/or "Agreement"?: New Methodologies and Data for an Old Question." Cornell University, February 7, 2002.

## 2. General Surveys, Fisher McGowan Critique, Demsetz Critique

Scherer and Ross, Ch 11 "Market Structure Studies of Structure and Performance"

Martin, Ch. 16, 17, 18.

\*Schmalensee, Richard. Handbook of Industrial Organization Ch. 16. "Interindustry Studies of Structure and Performance" (as handed out in class).

Demsetz, Harold. "Two Systems of Belief About Monopoly" in Godschmid, H. et. al. *Industrial Concentration: The New Learning* Little Brown: Boston 1974.

## 3. Single Equation Models for Profitability

Ravenscraft, D. "Structure-Profit Relationships at the Line of Business and Industry Level," *Review of Economics and Statistics* Vol. 65, 1983, pp. 22-31.

Kwoka, John E. & David J. Ravenscraft "Cooperation v. Rivalry: Price Cost Margins by Line of Business" *Economica*, Vol. 53, August 1986, pp. 351-363.

\*Cotterill, Ronald W. and Clement W.A. Iton "A PIMS Analysis of the Structure-Profit Relationships in Food Manufacturing" In Ronald W. Cotterill ed., *Competitive Strategy Analysis in the Food System*, Boulder: Westview Press, 1993.

\*Petraglia, Lisa M. and Richard T. Rogers. "The Impact of Agricultural Marketing Cooperatives on Market Performance in U.S. Food Manufacturing Industries for 1982. Food Marketing Policy Center Research Report No. 12, July 1991. pp. 34-71.

Salinger, Michael "The Concentration-Margins Relationship Reconsidered" *Brookings Papers: Microeconomics* 1990, pp. 287-335.

Domowitz, Ian, R. Glenn Hubbard and Bruce C. Petersen. "The Intertemporal Stability of the Concentration-Margins Relationship," *Journal of Industrial Economics*, 35(1), September 1986a, 13-34.

Domowitz, Ian, R. Glenn Hubbard and Bruce C. Petersen. "Business Cycles and the Relationship between Concentration and Price-Cost Margins," *Rand Journal of Economics*, 17(1), Spring 1986b, 1-17.

B. Market Share and Concentration Relationships to Prices

1. Theory

\*Cotterill, R. W. ed. *Competitive Strategy Analysis in the Food System*, Westview: Boulder, 1993, Chapter 1.

\*Haller, Lawrence, Ch. 2. Theory in "Branded Product Pricing Strategies...", UConn Ph.D. Dissertation, ARE, 1994.

2. Evidence

Weiss, Leonard, Concentration and Price. Cambridge: MIT Press, 1987. Ch 1.

\*Cotterill, Ronald, "Market Power in the Retail Food Industry: Evidence From Vermont" *Review of Economics and Statistics*, (August 1986), pp. 379-386.

\*Haller, Lawrence, "Branded Product Marketing Strategies in the Cottage Cheese Market: Cooperative Versus Proprietary Firms", Ronald Cotterill ed. *Competitive Strategy Analysis in the Food System*, Westview Press: Boulder. 1993. p. 155-178.

\*Baker, Jonathan. "Econometric Analysis in FTC v. Staples", Amer. Bar Association Antitrust Conference, Wash: DC, July 18, 1997.

C. Conjectural Variation Studies: Homogeneous Product Industries

\*Applebaum, Elie. "The Estimation of the Degree of Oligopoly Power," *Journal of Econometrics* 19, 1982, p. 287-299.

\*Bhuyan, S. and R. Lopez. "Oligopoly Power in the Food and Tobacco Industries," *Amer. Journal of Agric. Economics* 79 (August 1997), p. 1035-1043.

\*Lopez, R., A. Azzam and C. Liron-España. "Market Power and/or Efficiency: A Structural Approach." *Review of Industrial Organization*, Vol. 20, 2002, pp. 115-126.

Carlton and Perloff. p. 387-389.

Breshnahan, Timothy F. "The Oligopoly Solution Concept is Identified," *Economic Letters*, Vol. 10 (1982), pp. 87-92 (or Church and Ware, pp. 440-447.)

Azzam, A. “Measuring Market Power and Cost-Efficiency Effects of Industrial Concentration,” *Journal of Industrial Economics*, 55 (December 1997), p. 377-386.

D. Residual Demand Studies<sup>1</sup>

\*Baker, Jonathan B. and Timothy F. Bresnahan. “The Gains from Merger or Collusion in Product-Differentiated Industries.” *The Journal of Industrial Economics*, Vol. XXXIII, June 1985, No. 4.

E. Demand Systems Studies in Differentiated Product Industries

1. Introduction and Policy Framework for Elasticity Estimation

Ivaldi, Marc, Bruno Jullien, Patrick Rey, Paul Seabright, and Jean Tirole. “The Economics of Unilateral Effects.” Interim Report for DG Competition, European Commission, IDEI, Toulouse, November 2003.

<http://europa.eu.int/comm/competition/mergers/others/#study>

\*Baker, Jonathan B. “Product Differentiation Through Space and Time: Some Antitrust Policy Issues” speech before American Bar Association, New York City Chapter, Feb. 6, 1996. Available from instructor.

Shapiro, Carl. “Mergers with Differentiated Products” speech before American Bar Association conference. *The Merger Review Process in the U.S. and Abroad*, Washington, D.C., November 9, 1995. Available from instructor.

2. Flexible Demand System Approaches

a. Unilateral Elasticity Approaches

\*Deneckere, Raymond and Carl Davidson. “Incentives to Form Coalitions with Bertrand Competition,” *Rand Journal of Economics*, Vol. 16, No. 4, winter 1985, p. 473-486.

\*Cotterill, Ronald W. and L.E. Haller. “An Econometric Analysis of the Demand for RTE Cereal: Product Market Definition and Unilateral Market Power Effects.” Research Report No. 35, FMPC, UConn, Sept. 1997. This is the senior author’s Expert Report, Exhibit C, Sept. 16, 1994, *State of New York vs. Kraft General Food et. al.* 93 Civ. 0811 (KMW).

\*Hausman, Jerry A., Gregory Leonard, J. Douglas Zora. “Competitive Analysis with Differentiated Products.” *Annales d’Economía et. de Statistique*, vol. 34, 1994.

b. Total Elasticity Approaches

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<sup>1</sup> Only in Differentiated Product Industries, such studies also exist for homogenous product industries.

Liang, J. Nellie. "An Empirical Conjectural Variation Model of Oligopoly." FTC Bureau of Economics Working Paper No. 151, February 1987 (especially pp. 1-16).

\*Liang, J. Nellie. "Price Reaction Functions and Conjectural Variations: An Application to the Breakfast Cereal Industry." *Review of Industrial Organization*, Vol. 4, No. 2, 1989, p. 31-58.

Martin, Ch. 2 "Reaction Curve Oligopoly Models".

\*Church and Ware, "Bertrand Competition" (P. 256-263).

Cotterill, Ronald, William Putsis, and Ravi Dhar. "On the Competitive Interaction Between Private Label and Branded Grocery Products," *Journal of Business*, 73:1, January 2000, p. 109-137.

\*Cotterill, Ronald W. and P. O. Samson. "Estimating a Brand Level Demand System for American Cheese Products to Evaluate Unilateral and Coordinated Market Power Strategies," *American Journal of Agricultural Economics*, 84(3) August 2002, pp. 817-823.

Dhar, T., J. Chavas, R. Cotterill. "An Economic Analysis of Product Differentiation under Latent Separability," Preliminary Draft: May 14, 2004, University of Wisconsin-Madison.

### 3. Logit and Generalized Logit Approaches

\*Berry, Stephen. (1994). "Estimating Discrete-Choice Models of Product Differentiation," *Rand Journal of Economics*, 25, 242-262.

Berry, S., Levinsohn, J., and A. Pakes. (1995). "Automobile Prices in Market Equilibrium," *Econometrica*, 63, 841-889.

\*Berry, Stephen and Ariel Pakes. "Some Applications and Limitations of Recent Advances in Empirical Industrial Organization: Merger Analysis," *American Economic Review*, vol. 83, no. 2, May 1993, pp. 247-252.

Nevo, Aviv. (2001). "Measuring Marketing Power in the Ready-To-Eat Cereal Industry." *Econometrica*, 69, 307-342.

McFadden, D. (1981). "Econometric Models of Probabilistic Choice," in C. Manski and D. McFadden, eds., *Structural Analysis of Discrete Data*, pp. 198-272, Cambridge" MIT press.

Wojcik, Charlotte. "Alternative Models of Demand for Automobiles." *Economic Letters*, 2000, 68, pp. 113-118.

## 4. Generalized Models that Include Vertical Channel Pricing Games

Iyer, Ganesh (Washington University in St. Louis) and J. Miguel Villas-Boas (University of California at Berkeley). "A Bargaining Theory of Distribution Channels" July 2000.

\*Cotterill, Ronald W. and William P. Putsis, Jr., "Testing the Theory: Assumptions on Vertical Strategic Interaction and Demand Functional Form," *Journal of Retailing*, 77(2001) p. 83-109.

Berto Villas-Boas, Sofia. "Vertical Contracts between Manufacturers and Retailers: Inference with Limited Data." University of California, Berkeley, August 2004.

\*Chidmi, Benaissa, Rigoberto A. Lopez, and Ronald W. Cotterill. "Decomposing Market Channel Profits: The Case of Ready-to-Eat Cereals in Boston." To be presented at conference, Madison, Wisconsin, June 2005.

## 5. Using Elasticities to Evaluate Price Impacts of Mergers

Werden, Gregory J. "Simulating the Effects of Differentiated Products Mergers: A Practitioners Guide" in J. Caswell and R. Cotterill eds. *Strategy and Policy in the Food System: Emerging Issues*, FMPC, UConn, Storrs, CT, 1996, p. 95-110.

Capps, Oral Jr., Jeffrey Church, and H. Alan Love. "Specification Issues and Confidence Intervals in Unilateral Price Effects Analysis. *Journal of Econometrics*, 2002.

## 6. Price Transmission/Cost Pass Through in Non Competitive Markets

Bulow, I., Jeremy and Paul Pfleiderer. (1983). "A Note on the Effects of Cost Changes on Prices." *Journal of Political Economy*, 91, Issue 1, February, 181-185.

\*Cotterill, Ronald W. (1998). "Estimation of Cost Pass Thorough to Michigan Consumers in the ADM Price Fixing Case," Food Marketing Policy Center, University of Connecticut, Storrs, CT, Research Report #39.

\*Marunas, Todd. "Determining the Cost Pass Through Rates of Cereal Manufacturers as a Result of the Vitamin Price Fixing Cartels." University of Connecticut Master of Science Thesis, 2003, Chapter 3.

Karp, Larry and Jeffrey Perloff (1989). "Estimating Market Structure and Tax Incidence: Japanese Television Market." *Journal of Industrial Economics* 38(3), March, 225-239.

\*Cotterill, R. "The Impact of the Northeast Dairy Compact on New England Consumers: A Report from the Milk Policy Wars." Food Marketing Policy Center Research Report No. 77. (Agribusiness, forthcoming 2005)

Ashenfelter, Orley, David Ashmore, and Jonathan Baker. "Identifying the Firm Specific Cost Pass Through Rate" FTC Working Paper No. 217, January 1998.

Cotterill, Ronald, Leonard Egan and William Buckhold. "Beyond Illinois Brick: The Law and Economics of Cost Pass Through in the ADM Price Fixing Case". *Review of Industrial Organization*, 18(1) p. 45-52, February 2001.

### III. Product Differentiation: Address Models and Private Label Grocery Products

Church and Ware, Chapter II, "Product Differentiation" especially 379-391.

Berges-Sennou, Fabian, Philippe Bontems, and Vincent Requillart. "Economics of Private Labels: A Survey of Literature," *Journal of Agricultural & Food Industrial Organization*, Vol. 2, 2004.

Mills, D., "Why Retailers Sell Private Labels," *Journal of Economics and Management Strategy*, 4 (1995):509-528.

Tian, Li, and Ronald W. Cotterill. "Constrained Price, Address, or Logit Brand Demand Models: An Econometric comparison in the Boston Fluid Milk Market." *Agribusiness: An International Journal*, Vol. 21(2) forthcoming 2005.

### IV. Barriers to Entry

#### A. General Theory

\*Waterson, Ch 4.

Scherer and Ross, Ch 10 "The Dynamics of Monopoly and Oligopoly Pricing"

\*Rill, James F. "Mergers Enforcement" (Barriers to Entry) *Antitrust Law Journal*, Vol 59, No. 2 1990, p 45- 53.

\*Salop, Steven C. and David T. Scheffman, "Raising Rivals' Costs," *American Economic Review*, Vol. 73, No. 2, (May 1983), pp. 267-271.

\*Cotterill, Ronald. "The Predatory Impacts of the Ahold/Pathmark Offer to Buy the Big Y Shop Rite Supermarket Chains" (handout from instructor) March 23, 2002.

Schmalensee, R. (1978). "Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry." *Bell Journal of Economics*, 9, 305-327.

Masson, Robert T. and Joseph Shaanan. "Stochastic-Dynamic Limiting Pricing: An Empirical Test." *Review of Economics and Statistics*, August 1982, 413-22.

Judd, K. L. "Credible Spatial Preemption." *RAND Journal of Economics*, 16:153-166.

B. Analysis of Entry Conduct and Testing for Barriers to Entry

\*Marion, Bruce, "Entry Barriers: Theory, Empirical Evidence and the Food Industries" in Wills, p. 187-202.

\*Gilbert, Richard J. "The Role of Potential Competition in Industrial Organization," *Journal of Economic Perspectives* 3(3): 107-129 (1989).

\*Cotterill, R. and L. Haller. "Barrier and Queue Effects: A Study of Landing U.S. Supermarket Chain Entry Patterns." *Journal of Industrial Economics* 40 (4) December 1992.

V. Antitrust Policy Analysis

\*F.T.C., "1992 Horizontal Merger Guidelines." <http://www.ftc.gov/bc/docs/horizmer.html>.

National Association of Attorneys General, 1993 Horizontal Merger Guidelines. No. 256, March 30, 1993. Commerce Clearing House, Inc., Chicago Illinois.

European Union, Commission Notice. "Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings" January 30, 2004

US Department of Justice Non Horizontal Merger Guidelines.  
<http://www.usdoj.gov/atr/public/guidelines/2614.htm>.

Sunshine, Steven C. US Department of Justice Vertical Merger Enforcement Policy. Address before the American Bar Association, Spring Meeting, Washington, DC, April 5, 1995.

Cotterill, Ronald W. "An Antitrust Economic Analysis of the Proposed Acquisition of Supermarkets General Holdings Corporation by Ahold Acquisition Inc." Presented to Bureau of Competition, FTC; Antitrust Section, New York Attorney General, and Antitrust Section, New Jersey Attorney General, April 1999. University of Connecticut Research Report No. 46.

Cotterill, Ronald W. "Antitrust Analysis of Supermarket Retailing: Common Global Concerns that Play Out in Local Markets." Invited Paper, Australian Agricultural and Resource Economics Society, Coffs Harbour, New South Wales, February 10, 2005.

Ivaldi, Marc, Bruno Jullien, Patrick Rey, Paul Seabright, and Jean Tirole. "The Economics of Tacit Collusion." Final Report for DG Competition, European Commission, IDEI, Toulouse, March 2003. <http://europa.eu.int/comm/competition/mergers/others/#study>

Ivaldi, Marc, Bruno Jullien, Patrick Rey, Paul Seabright, and Jean Tirole. "The Economics of Unilateral Effects." Interim Report for DG Competition, European Commission, IDEI, Toulouse, November 2003.  
<http://europa.eu.int/comm/competition/mergers/others/#study>

FTC/DOJ Joint Workshop on Merger Enforcement, February 17-19, 2004.

<http://www.ftc.gov/bc/mergerenforce/presentations/index>

**VI. The Market for Corporate Control: Mergers, Takeovers, Leveraged Buyouts. (Corporate level portfolio strategies, separation of ownership and control)**

\*Manne, Henry G. "Mergers and the Market for Corporate Control," *Journal of Political Economy*, Vol. 73 (1965), pp. 110-120.

\*Fama, Eugene F. and Michael C. Jensen. "Separation of Ownership from Control," *Journal of Law and Economics*, Vol. 26(June 1983), pp. 301-325.

\*Porter, Michael E. 1992. "Capital Disadvantage: America's Failing Capital Investment System," *Harvard Business Review*. Sept.- Oct., pp. 65-82.

\*Jensen, Michael C. 1986. "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers" *The American Economic Review*. 76(2) 323-329.

Hirschey, Mark, "Mergers, Buyouts, and Fakeouts", *American Economic Review*, Vol. 76, No. 2(May 1986), pp. 317-322.

\*Chevalier, Judith A. "Capital Structures and Product Market Competition: Empirical Evidence from the Supermarket Industry." *American Economic Review*, vol. 85, no. 3, June 1995, p. 415-436.