

AGEC 506 Marketing and Price Analysis

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Office Hours: No formal hours. I am here most days from 9 to 3, and am usually available. After class is lunchtime.

Courses in “Marketing and Price Analysis” generally emphasize either:

- a. Understanding the array of forces that determine the level and behavior of commodity and food prices, or
- b. Forecasting prices and examining strategic marketing and price speculation.

The first is more theoretical and often emphasizes policy; the second has a practical focus and is concerned with what can broadly be termed farm and food firm management.

This class is in the first category. It should be called “The Economics of Agricultural Markets.” Our goal is to develop an understanding of behavior in commodity and food markets and the factors governing this behavior. Such knowledge is important because commodity and food markets are subject to regulations of all kinds, and we wish these to be intelligent regulations. Furthermore, they are very interesting. Agricultural markets are many-faceted, with topics ranging from optimal grain storage and market concentration in the poultry and livestock industries to food safety and fast food advertising to children. Ultimately, everything is related to the fundamental notions of supply and demand. Markets are, after all, where supply and demand meet.

The main objectives of the course are:

- 1) To acquaint students with the important components of commodity and food markets and the many interesting problems they present;
- 2) To initiate students in the practice of reading and ultimately conducting agricultural marketing research.

The course is concerned with developing analytical skills and logical thinking about markets. This involves integrating economic theory, analytical methods, common sense, and familiarity with the institutional framework of the various components of the food system. Market analysis involves building “models” of markets, and one must be able to evaluate the strengths and weaknesses of these creations.

Text: William G. Tomek and Harry M. Kaiser *Agricultural Product Prices*, Fifth Edition, Cornell, 2003.

We will follow the topics in the text, although we may not cover the last three chapters, which deal with applied price analysis. We will also include topics not in the text, especially those dealing with retail pricing and the consumer side of markets. In addition, we will read some of the journal articles in the reading list below. My plan is for the class to consist of lectures and class discussion, the latter generally based on journal articles. We will certainly not read all the papers listed, and others may be assigned. The articles differ widely in complexity and difficulty (and clarity). You certainly are not expected to understand everything; the trick is to extract the important points. Leave the details to specialists and those performing similar manipulations in similar endeavors, e.g. writing theses.

Prerequisites are a course in intermediate microeconomics and some facility with calculus. Students also need to have taken a solid course in statistics. This should include an introduction to regression analysis, at least to the point that you can interpret results obtained by this method.

Grades will be based on a midterm (25%), a final (35%), homework exercises (15%), and a project (25%). The homeworks will include very brief (maximum two double-spaced pages) written reviews/summaries of selected class readings, consisting of:

- 1) A description of what the paper tries to do;
- 2) Its strengths (if any) and weaknesses (if any);
- 3) What you learned (if anything);
- 4) Your grade for the paper (A,B,..), and a reason for it.

There will also be some problems. The term project will consist of an analysis of a particular issue involving commodity/ food markets. This will entail an examination of the research evidence relevant to your problem as published in various sources. It would be desirable if you also included some original data analysis, however simple, although this is not a requirement. The length of the paper is up to you, but if you want a number something along the lines of 12-15 pages seems reasonable. About half way through the semester you will need to turn in a short (less than one page) description of the question you are studying. In addition to the written paper, students will present a short (15-20 minute) class presentation of their project. This will be during the last week of the semester.

* An asterisk indicates articles which we will very likely read.

1. Demand and demand elasticities - Chapter 2 and Chapter 3.

Buse, Reuben. "Total Elasticities: A Predictive Device." *Journal of Farm Economics*, Vol.40, No. 4 (Nov., 1958), pp. 881-891.

*Gicheva, Dora, Hastings, Justine S. and Villas-Boas, Sofia Berto, "Investigating Income Effects in Scanner Data: Do Gasoline Prices Affect Grocery Purchases?" *American Economic Review Papers and Proceedings 100* (May 2010). pp.480-4.

George, P.S., and G. A. King. *Consumer Demand for Food Commodities in the United States, With Projections for 1980*. Giannini Foundation Monograph Number 26, Department of Agricultural Economics, University of California Davis, March 1971.

Houck, James B. "Price Elasticities and Joint Products," *Journal of Farm Economics*, Vol. 46, No. 3 (Aug., 1964), pp. 652-656

Currie, .M., J. A. Murphy, and A.Schmitz. "The Concept of Economic Surplus and Its Use in Economic Analysis." *The Economic Journal*, December, 1971 pp741-799.

Allender, W and T Richards. "Consumer Impact of Animal Welfare Regulation in the California Poultry Industry." *Journal of Agricultural and Resource Economics* 35(3) 2010.

2. Agricultural Supply - Chapter 3

Chavas, J-P, and S.R. Johnson. "Supply Dynamics : The Case of U.S. Broilers and Turkeys." *American Journal of Agricultural Economics*, Vol 64, No 2, 1982 558-564.

Willett, Lois. "The US Apple Industry: Econometric Model and Projections." *Agricultural and Resource Economics Review*, October, 1993, 137-149.

*Schmitz, Andrew, and David Seckler. "Mechanized Agriculture and Social Welfare: The Case of the Tomato Harvester." *American Journal of Agricultural Economics*, 52(4):1970, 569-577.

Brandt, Jon, J. Kruse, and B. Todd. "Supply, Demand, and Effects of Alternative Policies in the U.S. Oats Industry." *American Journal of Agricultural Economics*, May, 1992, 318-328.

Westcott, Paul C. and Linwood A. Hoffman, *Price Determination for Corn and Wheat: The Role of Market Factors and Government Programs*, Economic Research Service, U.S. Department of Agriculture. Technical Bulletin No. 1878, July 1999.

Fortenbery, T. R., and H. Park. "The Effect of Ethanol Production on the U.S. National Corn Price." Staff Paper 523, Department of Agricultural and Applied Economics, University of Wisconsin, April, 2008.

Abbott, P, C. Hurt, and W. Tyner. What's Driving Food Prices?, Farm Foundation Issues Report, July 2008.

3. Price Determination Under Different Competitive Models - Chapter 4

Bhuyan, S., and R.A. Lopez, "What Determines Welfare Losses From Oligopoly Power in the Food and Tobacco Industries?" *Agricultural and Resource Economics Review*, October 1998, 258-265.

"Empirical investigations into buying power and farm gate-retail price spreads." *London Economics*, November 2003, 145-151.

Parker, R., and J. Connor. Estimates of Consumer Loss Due to Monopoly in the Food Manufacturing Industries," *American Journal of Agricultural Economics*. Vol. 61, No. 4, 1979 626-639.

*Peterson, E, and J.M. Connor. "A Comparison of Oligopoly Welfare Loss Estimates for U.S. Food Manufacturing," *American Journal of Agricultural Economics*. Vol. 77, No. 2, 1995, 300-308.

*Hotelling, Harold. "Stability in Competition." *The Economic Journal*, Vol. 39, No. 153 (Mar., 1929), pp. 41-57.

Rodgers, R.T. and Sexton, R.J. "Assessing the Importance of Oligopsony Power in Agricultural Markets." *American Journal of Agricultural Economics*, Vol. 76, No. 5, 1994, 1143-1150.

Shi, G., J.P. Chavas, K.W. Stiegert, and X. Meng. 2012. "An analysis of bundle pricing: the case of biotech seeds." *Agricultural Economics* 45(s1): 125-139.

Appelbaum, Elie. "The Estimation of the Degree of Oligopoly Power." *Journal of Econometrics* 19 (1982) 287-299.

4. Marketing Margins - Chapter 6

Gardner, Bruce. "The Farm-Retail Price Spread in a Competitive Food Industry." *American Journal of Agricultural Economics*, Vol. 57, No. 3 (Aug., 1975), pp. 399-409

Sexton, Richard, and Mingxia Zhang. "A Model of Price Determination for Fresh Produce with Application to California Iceberg Lettuce." *American Journal of Agricultural Economics*, Vol. 78, No. 4 (Nov., 1996), pp. 924-934.

Wohlgenant, Michael, and John D. Mullen. "Modeling the Farm-Retail Price Spread for Beef." *Western Journal of Agricultural Economics*, 12(2), 1987, 119-125.

Roeger, Edward, and Ephriam Leibtag. *How Retail Beef and Bread Prices Respond to Changes in Ingredient and Input Costs*. ERR-112, U.S. Department of Agriculture, Economic Research Service, February 2011.

Borenstein, Severin, A. Colin Cameron, and Richard Gilbert. "Do Gasoline Prices Respond Asymmetrically to Crude Oil Price Changes?" *The Quarterly Journal of Economics*, Vol. 112, No. 1 (Feb., 1997), pp. 305-339.

McCorriston, S., Morgan, C., Rayner, A. "Price Transmission: The Interaction Between Market Power and Returns to Scale," *European Review of Agricultural Economics*, 28:2, 2001, 143-159.

Schnepf, Randy, *Farm to Food Price Dynamics*. Congressional Research Service 7-5700, November 6, 2009, 38 pages.

5. Space - Chapter 8

Ardeni, P. "Does the Law of One Price Really Hold for Commodity Prices?" *American Journal of Agricultural Economics*, Vol. 71, 1989, 661-669.

Bailey, D.V., B. Wade Brorsen, and Michael R. Thomsen "Identifying Buyer Market Areas and the Impact of Buyer Concentration in Feeder Cattle Markets Using Mapping and Spatial Statistics." *American Journal of Agricultural Economics*, Vol. 77, No. 2 (May, 1995), pp. 309-318

*Benirshka, M., and J. Binkley. "Optimal Storage and Marketing Over Space and Time," *American Journal of Agricultural Economics*, Vol. 77, 1995, 512-524

Barrett, C. "Market Analysis Methods: Are Our Enriched Tool Kits Well Suited to Enlivened Markets?" *American Journal of Agricultural Economics*, August 1996, 825-829.

Tostao, E. And B.W.Brorsen. "Spatial price efficiency in Mozambique's post-reform maize markets," *Agricultural Economics*, 33 (2005) 205-214.

*Hoover, Edgar, "Spatial Price Discrimination." *Review of Economic Studies*, 4:(3), 1937, pp 182-191.

Goodwin, Barry, Thomas Grennes, and Lee Craig. "Mechanical Refridgeration and the Integration of Perishable Commodity Markets." *Explorations in Economic History*, 2002 39, pp154-182.

6. Price Variation in Time - Chapter 9

Ezekiel, M., "The Cobweb Theorem," *Quarterly Journal of Economics*, 53, 1938, 255-280.

*Waugh, F. "Cobweb Models," *Journal of Farm Economics*, 46, 1964, 732-750.

Binkley, J. "Marketing Costs and Instability in the International Grain Trade," *American Journal of Agricultural Economics*, 1983, 58-64.

*Massell, B. "Price Stabilization and Welfare," *The Quarterly Journal of Economics*, Vol. 83, No. 2 (May, 1969), pp. 284-298.

*Waugh, F. "Does the Consumer Benefit From Price Instability?" *Quarterly Journal of Economics*, 58:4, 1944,602-614.

Oi, W. "The Desirability of Price Instability Under Perfect Competition." *Econometrica*, 29:1, 1961, 58-64.

Cochrane, w., "Some Nonconformist Thoughts on Welfare Economics and Commodity Stabilization Policy," *American Journal of Agricultural Economics*, Vol. 62, No. 3 (Aug., 1980), pp. 508-511.

7. On Farm off-Farm Prices and Index Numbers -Chapter 10

8. Price Discovery and Contracts- Chapter 11

Mueller, w. Marion, B., Sial, M., and F. Geithman. *Cheese Pricing: A Study of the National Cheese Exchange*. Dept of Agricultural Economics, University of Wisconsin, 1996.

Rhodus,W.T.,E.D Baldwin, and D R. Henderson. "Pricing Accuracy and Efficiency in a Pilot Electronic Hog Market," *American Journal of Agricultural Economics*, Vol. 71, No. 4 (Nov., 1989), pp. 874-882.

*Tomek, W. "Price Behavior on a Declining Terminal Market," *American Journal of Agricultural Economics*, Vol. 62, No. 3 (Aug., 1980), pp. 434-444.

*Sheldon, I. "Contracting, Imperfect Information, and the Food System" *Review of Agricultural Economics*, Vol. 18, No. 1 (Jan., 1996), pp. 7-19.

Knoeber, Charles, and W. Thurman, "Testing the Theory of Tournaments: An Empirical Analysis of Broiler Production." *Journal of Labor Economics*, 12:2 (April 1994) pp 155-179.

Young, Linda, and Jill E. Hobbs. "Vertical Linkages in Agri-Food Supply Chains: Changing Roles for Producers, Commodity Groups, and Government Policy." *Review of Agricultural Economics*, Vol. 24, No. 2 (Autumn - Winter, 2002), pp. 428- 441.

*Coase, R. "The Nature of the Firm," *Economica*, November, 1937, 386-405.

Drabenstott, Mark. "Agricultural Industrialization: Implications for Agricultural Development and Public Policy," *Journal of Agricultural and Applied Economics*, 27:1, 1995, 13-20.

9. Futures - Chapters 12 and 13.

Garcia, P., and R Leuthold. "A selected review of agricultural commodity futures and options markets," *European Review of Agricultural Economics*; 31:3, 2004, 235-272.

*Working, H. "The Theory of the Price of Storage," *American Economic Review*, December, 1949, 1254-1262.

Brennan, M., "The Supply of Storage, *The American Economic Review*, Vol. 48, No. 1 (Mar., 1958), pp. 50-72

Telser, L. "Futures Trading and the Storage of Cotton and Wheat," *The Journal of Political Economy*, Vol. 66, No. 3 (Jun., 1958), pp. 233-255.

Pyndyck, Robert "The Dynamics of Commodity Spot and Futures Markets: A Primer." *The Energy Journal*, 22(3) 2001.

Williams, J., "E-Commerce and the Lessons from Nineteenth Century Exchanges," *American Journal of Agricultural Economics*, Vol. 83, No. 5,(Dec., 2001), pp. 1250-1257.

Zulauf, C. And S. Irwin, "Market Efficiency and Marketing to Enhance Income of Crop Producers, *Review of Agricultural Economics*, Vol. 20, No. 2 (Autumn - Winter, 1998), pp. 308-331.

10. Information on quality and prices- Chapter 7

Schroeder, Ted, and Jennifer Graff. "Estimated Value of Increased Pricing Accuracy for Fed Cattle." *Review of Agricultural Economics*, Vol. 22, No. 1 (Spring - Summer, 2000), pp. 89-101.

Parker, Douglas, and David Zilberman. "Hedonic Estimation of Quality Factors Affecting the Farm-Retail Margin." *American Journal of Agricultural Economics*, Vol. 75, No. 2 (May, 1993), pp. 458-466.

*Bockstael, Nancy, "The Welfare Implications of Minimum Quality Standards." *American Journal of Agricultural Economics*, Vol. 66, No. 4 (Nov., 1984), pp. 466-471.

Bowman, Kenneth and Don Ethridge, " Characteristic Supplies and Demands in a Hedonic Framework: US Market for Cotton Fiber Attributes." *American Journal of Agricultural Economics*, November, 1992, 991-1002.

Caswell, Julia. "Valuing the Benefits and Costs of Improved Food Safety and Nutrition." *Australian Journal of Agricultural Economics*, 42:4, 1998, 409-424.

*Brown, Deborah, and Lee F. Schrader. "Cholesterol Information and Shell Egg Consumption." *American Journal of Agricultural Economics* 72(3):August 1990 548-555.

Gillmeister, William J., Robert D. Yonkers, and James W. Dunn. "Hedonic Pricing of Milk Components at the Farm Level." *Review of Agricultural Economics* Vol. 18, No. 2 (May, 1996), pp. 181-192.

Ward, Clement, Dillon Feuz, and Ted Schroeder. *Formula Pricing and Grid Pricing Fed Cattle: Implications for Price Discovery and Variability*, Research Bulletin 1-99, Agricultural and Applied Economics, Virginia Tech, 1999. 59 pages.

Feuz, Dillon. "Market Signals in Value-Based Pricing Premiums and Discounts." *Journal of Agricultural and Resource Economics*, 24(2), 1999, 327-341.

Bales, Malcolm and Mary Ryan (1977). "Wheat Protein Premiums and Price Differentials." *American Journal of Agricultural Economics*, 59:3 530-32.

Nelson, P. (1970). "Information and Consumer Behavior." *Journal of Political Economy* 78(March/April): 311-29.

*Stigler, George J. "The Economics of Information," *The Journal of Political Economy*, June 1961, 69(3):213-25.

Binkley, James (2013) "Price Search in Retail Food Markets: Searching Across Stores and Brands," *Journal of Consumer Affairs* 2013.

Bonroy, O, and C. Constantatos. "On the Economics of Labels: How Their Introduction Affects the Functioning of Markets and the Welfare of All Participants" *American Journal of Agricultural Economics*, January 2015.

Chang, J. J Lusk, and F Norwood. "The Price of Happy Hens: A Hedonic Analysis of Retail Egg Prices." *Journal of Agricultural and Resource Economics*, 35(3): 2010.

11. More on Noncompetitive Pricing; Marketing Orders and Coops

*Oi, Walter Y. "A Disneyland Dilemma: Two-Part Tariffs for a Mickey Mouse Monopoly," *The Quarterly Journal of Economics* (1971) 85 (1): 77-96.

McCorrison, Steve, and Ian Sheldon. "Vertical Restraints and Competitive Policy in the US and UK Marketing Systems." *Agribusiness*, #(2), 1997, 237-252.

French, Ben, "Fruit and Vegetable Marketing Orders: A Critique of the Issues and State of the Analysis." *American Journal of Agricultural Economics*, 64(5): 1982, pp 916-923.

Azzan, Azzaddine. "Testing the Monopsony-Inefficiency Incentive for Backward Integration." *American Journal of Agricultural Economics*, 78:3 (August, 1996) pp 585-590.