Luke M. Froeb, William C. Oehmig Chair in Free Enterprise and Entrepreneurship

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Education

Nashville, TN 37203

Stanford University, A.B. (1978), Economics, with honors and academic distinction. University of Wisconsin, Ph.D. (1983), Econometrics, passed with distinction.

Experience

- 1993- Asst.(1993)/Assoc.(1998)/chaired(2002) Professor of Management, Vanderbilt University. Teach managerial economics (<u>textbook</u>; <u>blog</u>) to MBA's and executive MBA's, and assorted topics in non-degree programs.
- 2017-8 **Deputy Asst. Attorney General, Antitrust Division, U.S. Dept. of Justice**. Managed 50 PhD's who provided economic analysis to support enforcement of antitrust laws.
- 2003-5 **Director, Bureau of Economics, U.S. Federal Trade Commission**. Managed 110 employees, including 75 PhD economists who provided economic analysis to support enforcement of antitrust and consumer protection laws. (talks)
- 1989 Kramer Foundation Fellow, University of Chicago Law School
- 1986-92 **Economist, Antitrust Division, U.S. Department of Justice**. Merger and price-fixing cases and policy: litigation support; expert witness; data analysis; policy analysis. Work for Sentencing Commission.
- 1984-5 Asst. Professor, Department of Economics, Tulane University. Taught grad and undergrad econometrics; grad industrial organization; undergrad micro

Awards, grants, professional activities

- 2020 Antitrust Writing Awards Nomination for "Antitrust and Tech: Europe and the United States Differ, and It Matters," <u>Competition Policy International</u> (Sept. 5, 2019)
- 2019-2021 Koch Foundation Grant for research on bargaining models
- 2012- Co-editor of *Economic Inquiry*
- 2012 Nominee, *Acquisition International* Legal Awards
- 2011 Finalist, 'Matter of the Year' for Imperial Tobacco vs. OFT, *Global Competition Review*
- 2005-09 Editorial Board of Competition Policy International
- 1998- Editorial Board of International Journal of the Economics of Business
- 2005-07 Outstanding Professor of Vanderbilt's Executive MBA program
- 2005 FTC Award for Distinguished Service
- 2005 ABA Economic Evidence Task Force
- 2002 Dean's Award for Outstanding and Widespread Research Impact
- 2001 Klebler-Gerry Lecturer, St. Olaf's College.
- 2001 Dell STAR (Strategic Technology And Research) Grant to update web-based *Mathematica* simulation games.
- 2000 Dean's Award for Teaching Excellence.
- 1999 Outstanding Professor of the Vanderbilt International Executive MBA program
- 1998 Outstanding Technological Innovation in Business Education for web-based *Mathematica* simulation games, by Price-Waterhouse and the University of Virginia McIntire School of Commerce.

- 1995 Grant Recipient, the Provost's Initiative on Technological Innovation in the Classroom to develop the Vanderbilt University *Mathematica* Web Server.
- 1994-02 Editor, Antitrust.org, resource linking economic research, policy, and cases.
- 1993-7 Steering Committee Member for the Undergraduate Computation and Engineering Sciences to promote the emerging field of computational science.

Recent Talks

- 2022 Big is Green: The Economics of Route Consolidation, Vanderbilt University.
- 2022 Competition, Concentration and Antitrust, Georgetown CBPP.
- 2021 Teaching a Judge or Jury Enough about Regression to (mis) Trust it, ABA Antitrust Law Section, <u>link</u>.
- 2021 Bargaining Competition and Vertical Mergers, LawEconWorkshop, U of Mannheim.
- 2020 Antitrust Panel Discussion, "Platform Competition: EU vs. US"
- 2020 Morgan Samuels, Belle Meade CC, "Pandemics, Models, Data"
- 2020 ASSA, "A Simple App to Teach Regression"
- 2020 U. Bonn, "Bargaining Competition and Vertical Mergers"
- 2019 IIOC, Boston, U. Conn. "Nash-in-Shapley: Bargaining with Recursive Threat Points," Hellenic Competition Authority, Greece: "Antitrust, Economics, and Models," CRESSE, Greece, "Developments in Vertical Merger Enforcement"
- 2018 "Models in Antitrust," Keynote at Eleventh Annual Searle Center on Antitrust Economics and Competition Policy, Chicago
- 2018 "Bargaining over the Gains to Innovation," Keynote at Eleventh Annual Searle Center/USPTO Conference on Innovation Economics, Chicago.
- 2018 "CompetitionToolbox.com: teaching complex economic models to lay people," Keynote at Concurrence Global Economics Antitrust Conference, New York.
- 2017 "Economics is to Antitrust as Models are to Economics," CRA Annual Brussels Conference: Developments in Competition Economics.
- 2016 St. Andrews, Scotland: "Horizontal Mergers in Optimal Auctions,"
- 2016 European Commission, DG-Comp, "Horizontal Mergers in Optimal Auctions."
- 2016 INSEAD, "Adversarial Decision Making: Choosing Among Models Constructed by Interested Parties."
- 2016 CRESSE, Greece, "Horizontal Mergers in Optimal Auctions (co-author Vlad Mares presented)."

RESEARCH: (4361 Citations, H Index=31, i10 Index=60, Google Scholar)

Working Papers

- Froeb, Luke M. and Mares, Vladimir and Tschantz, Steven T., Nash-in-Shapley: Modeling Bargaining Competition: Nash-in-Nash vs. Nash-in-Shapley (December 30, 2020). <u>SSRN</u>.
- Boshoff, Willem, Luke M Froeb, Luke M., Roan Minnie, Steven Tschantz, Bargaining Competition and Vertical Mergers, <u>SSRN</u>.
- Froeb, Luke and Vlad Mares, Vlad and Steven Tschantz, Horizontal Mergers Do Not Necessarily Harm the Auctioneer (March 4, 2020).
- Froeb, Luke M., A Simple App to Teach Regression (link to app), (Dec 30, 2020). SSRN
- Doane, Michael J., Luke M. Froeb, Gregory Werden, and David Zimmer. Predicting the Price Effects from Retail Mergers, (Jan, 2013), <u>SSRN</u>.

- Doane, Michael J., Froeb, Luke M. and Van Horn, R. Lawrence, How Well Do Travel Cost Models Measure Competition Among Hospitals? (September 16, 2011). <u>SSRN</u>
- Froeb, Luke M., Mikhael Shor, Steven Tschantz, Mergers in Auctions with an Incumbent Advantage (September 2, 2008). <u>SSRN</u>.
- Werden, Gregory, Luke Froeb, and Steven Tschantz, Incentive Contracts as Merger Remedies, (October 2005). <u>SSRN</u>
- Froeb, Luke M., Tschantz, Steven T. and Crooke, Philip, "Mergers Among Asymmetric Bidders: A Logit Second-Price Auction Model" (February 27, 1998). <u>SSRN</u>
- Froeb, Luke and Steven Tschantz, How Much Information is Required to Accurately Predict Merger Effects?, Owen Working paper (2001).
- Froeb, Luke, Steven Tschantz & Philip Crooke, Second-price Auctions with Powerrelated Distributions: Owen Working paper (2001). <u>SSRN</u>

Froeb, Luke, An Innovation Variance Ratio Test, Owen working Paper (1996)

Publications (reverse chronological order)

- 1. Luke M. Froeb, Bruce H. Kobayashi, John M. Yun, Organizational Form and Enforcement Innovation, *Antitrust Law Journal*, (forthcoming).
- Werden, Gregory J. and Froeb, Luke M., Can the FTC Turn Back the Clock, <u>Antitrust</u> <u>Magazine Online</u>, (Oct, 2021), p.1., Nominated for the <u>2022 Antitrust Writing Awards</u>
- Froeb, Luke M., Bernhard Ganglmair, Gregory J. Werden, and Steven Tschantz, Technology Economics: Innovation, Licensing, and Antitrust (Nov 20, 2020) <u>The</u> <u>Global Antitrust Institute Report on the Digital Economy 6</u>
- 4. Werden, Gregory J. and Froeb, Luke M., Possible Problems in the Google Case, <u>Competition Policy International</u> (Oct 27, 2020).
- Werden, Gregory J. and Froeb, Luke M., Antitrust and Tech: Europe and the United States Differ, and It Matters, <u>Competition Policy International</u> (Sept. 5, 2019). <u>SSRN</u>, Nominated for <u>2020 Antitrust Writing Awards</u>
- Gregory Werden and Luke Froeb. Why Patent Hold-up does not Violate Antitrust Law, Texas Intellectual Property Law Journal 27 (2019) 1. <u>SSRN</u>
- Luke M. Froeb, Russell W. Pittman, Charles S. Taragin, Steven Tschantz, Gregory J. Werden, Economics at the Antitrust Division: 2017–2018. <u>Review of Industrial</u> <u>Organization</u> (2018) 53:637–651. <u>DOJ</u>
- 8. Gregory Werden and Luke Froeb. DON'T PANIC: A, Guide to Claims of Increasing Concentration, *Antitrust*, (Fall 2018). <u>SSRN</u>
- Froeb, Luke and Vladimir Mares, Steven Tschantz, Charles Taragin. The simple algebra of surplus in private values open auctions: A nested logit merger model, <u>Economics</u> <u>Bulletin</u>, vol. 38(4) (2018) 2304-12. <u>SSRN</u>
- Doane, Michael, Luke Froeb, Gregory Werden, and David Zimmer. Hertz–Dollar Thrifty: Fixing a Merger to Avoid Litigation, in *The Antitrust Revolution* 87 (Lawrence J. White & John W. Kwoka, eds., 7th ed. 2018).
- Gregory Werden and Luke Froeb. Increased Margins and Merger Assessment, <u>Journal of</u> <u>European Competition Law and Practice</u>, 9:8 (2018), pp. 519-522.
- Kalnins, Arturs, Luke M. Froeb, and Steven T. Tschantz, Can Mergers Increase Output: Evidence from the Lodging Industry. <u>*RAND Journal of Economics*</u>, 48(1) (Spring 2017) 178–202.

- Froeb, Luke M., Bernhard Ganglmair, and Steven Tschantz, Adversarial Decision Making: Choosing Between Models Constructed by Interested Parties, *Journal of Law & <u>Economics</u>* 59:3 (2016) 527-548. <u>SSRN</u>
- Doane, Michael J., Luke M. Froeb, Brijesh J. Pinto, and David S. Sibley, "Screening for Collusion as a Problem of Inference," in *Oxford Handbook of International Antitrust Economics*, edited by Roger Blair and Daniel Sokol, Oxford University Press: Kettering, U.K., 2015.
- 15. Froeb, Luke M. and Mikhael Shor, Innovators, Implementors and Two-sided Hold-up, <u>Antitrust Source</u> 14(6) (August, 2015) 1-10.
- 16. Froeb, Luke, Brian McCann, Mikhael Shor and Michael Ward, *Managerial Economics: A Problem-solving Approach*, 5th Edition, (Cincinnati, Cengage/Southwestern, 2016).
- 17. Werden, Gregory J. and Luke M. Froeb, "Merger Strategies and Antitrust Concerns," in <u>Oxford Handbook of Managerial Economics</u>, edited by Christopher R. Thomas and William F. Shughart II, Oxford University Press: Kettering, U.K., 2013.
- Froeb, Luke M. and Larry van Horn, Regulators Using New 'Travel Cost' Models in Merger Enforcement, Hospitals & Health Networks Daily July 18 (2013). <u>H&HN</u>
- Froeb, Luke M. and Ward, James C., Teaching Managerial Economics with Problems Instead of Models (April 5, 2011). THE INTERNATIONAL HANDBOOK ON TEACHING AND LEARNING IN ECONOMICS, Gail Hoyt, KimMarie McGoldrick, eds., Edward Elgar Publishing, 2012. Available at <u>SSRN</u>
- 20. Ganglmair, Bernhard, Luke M. Froeb, and Werden, Gregory J., Patent Hold Up and Antitrust: How a Well-Intentioned Rule Could Retard Innovation, *Journal of Industrial Economics* 60(2), (June 2012) 249-273. <u>SSRN</u>
- 21. Froeb, Luke, and Bruce Kobayashi, Adversarial versus Inquisitorial Justice, *Procedural Law And Economics, Encyclopedia of Law and Economics,* vol. II, (edited by Chris William Sanchirico, (Edward Elgar, 2012).
- 22. Werden, Gregory J. and Froeb, Luke M. Choosing Among Tools for Assessing Unilateral Merger Effects. *European Competition Journal* 155 (2011). <u>SSRN</u>
- Werden, Gregory J., Luke M. Froeb, and Mikhael Shor. Behavioral Antitrust and Merger Control, *Journal of Institutional and Theoretical Economics*, (2011, Vol. 167, No. 1, 126-142). <u>SSRN</u>
- Doane, Michael, Luke Froeb, and Steven Tschantz, <u>WARNING</u>: Improper Use of the New *Horizontal Merger Guidelines* Can Result in Overly Narrow Markets, Mistaken Inferences of Market Power, and Wrong-Headed Analyses. *CPI Antitrust Journal* 10(2), (October 28, 2010). <u>link</u>
- Tenn, Steven, Luke Froeb, and Steven Tschantz, Merger Effects When Firms Compete by Choosing Both Price and Promotion, <u>International Journal of Industrial Organization</u>, <u>28:6</u> (November 2010), Pages 695-707.
- 26. Froeb, Luke, Paul Pautler, and Lars-Hendrik Roeller, The Economics of Organizing Economists, *Antitrust Law Journal* 76(2) (2009) 101-116. <u>SSRN</u>
- 27. Froeb, Luke, On Revising the Merger Guidelines, *Global Competition Policy*, (Oct., 2009). Available at

http://www.globalcompetitionpolicy.org/index.php?&id=1926&action=907

- 28. Froeb, Luke, Pingping Shan, Reconciling the Conflicting Views of the DOJ Report on Single-Firm Conduct, *Global Competition Policy*, (Oct., 2008). <u>link</u>
- 29. Rosa Abrantes-Metz and Luke Froeb, The Agencies are Screening for Collusion: What are they Likely to Find? *ABA Newsletter* (Spring, 2008). (<u>link</u>)
- 30. Werden, Gregory and Luke Froeb, Unilateral Competitive Effects of Horizontal Mergers II: Auctions and Bargaining, *Issues in Competition Law and Policy*, W. Dale Collins (ed.), ABA Section of Antitrust Law, 2008, vol. 2, 1343. <u>SSRN</u>

- 31. Gandhi, Amit, Luke Froeb, Steven Tschantz, and Gregory Werden, Post-Merger Product Repositioning, *Journal of Industrial Economics*, 41 (March, 2008) 49-67. <u>SSRN</u>.
- 32. Froeb, Luke, Steven Tschantz, and Gregory Werden, Vertical Restraints and the Effects of Upstream Horizontal Mergers, *The Political Economy of Antitrust*, Vivek Ghosal and Johann Stennek (Eds.), Amsterdam: North-Holland Publishing, (2007) p. 369. <u>SSRN</u>
- 33. Werden, Gregory J., and Luke M. Froeb, Unilateral Competitive Effects of Horizontal Mergers, in *Handbook of Antitrust Economics*, Paolo Buccirossi (ed.), (Boston: MIT Press), 2007, 43-104. <u>SSRN</u>:
- 34. Froeb, Luke M. and Pautler, Paul A., Consumer Protection. International Encyclopedia of the Social Sciences, Forthcoming; Vanderbilt Law and Economics Research Paper No. 07-10. Available at SSRN: <u>https://ssrn.com/abstract=980781</u>
- Froeb, Luke, Review of "Economy of Grace" Journal of Lutheran Ethics, vol. 29, July, 2006. (<u>link</u>)
- 36. Froeb, Luke, If Merger is the Answer, What is the Question? *M&A Journal.* (March, 2006), reprinted in *Owen Manager* (2006) and in *Proceedings of the I Lisbon Conference on Competition Law and Economics* (Kluwer Law International, forthcoming).
- Abrantes-Metz, Rosa, Luke Froeb, John Geweke, Christopher Taylor, A Variance Screen for Collusion, *International Journal of Industrial Organization*, 24 (May, 2006) 467-486. <u>SSRN</u>:
- Cooper, James, Luke Froeb, Daniel O'Brien, and Michael Vita, Vertical Antitrust Policy as a Problem of Inference, *International Journal of Industrial Organization*, 23 (2005) 639–664. <u>SSRN</u>
 - i) <u>Comment</u> by John Comanor, Frederick Scherer, and Robert Steiner ii) <u>Reply</u>
 - iii) by John Comanor, Frederick Scherer, and Robert Steiner
- 39. Cooper, James, Luke Froeb, Daniel O'Brien, and Michael Vita, A Comparative Study of United States and European Union Approaches to Vertical Policy, *George Mason Law Review*, 13:2 (Winter, 2005) 289-308. <u>SSRN</u>
- Cooper, James, Luke Froeb, Daniel O'Brien, and Michael Vita, Vertical Restraints and Antitrust Policy: What about the Evidence? *Competition Policy International*, 1:2 (Autumn, 2005) 45-64. <u>SSRN</u>
 - i) <u>Comment</u> by Frederick Scherer (2005)
 - ii) <u>Comment</u> by Ralph Winter (2005)
 - iii) <u>Reply by</u> authors (2006)
 - iv) Rejoinder by Ralph Winter (2006)
- 41. Auctions, Evidence, and Antitrust, in *Econometrics: Legal Practical and Technical Issues*, John Harkrider (ed.), ABA Section on Antitrust Law, 2005. (with Mikhael Shor).
- 42. Merger Simulation, in *Econometrics: Legal, Practical, and Technical Issues*, John D. Harkrider (ed.), ABA Section of Antitrust Law, 2005, p. 269 (with Steven Tschantz and Gregory Werden).
- 43. Froeb, Luke, James Cooper, Mark Frankena, Paul Pautler, and Louis Silvia, Economics at the FTC: Cases and Research with a Focus on Petroleum, *Review of Industrial Organization*, 26 (2005) 1-30.
- Froeb, Luke and Steven Tschantz, and Gregory Werden, Pass-Through Rates and the Price Effects of Mergers, *International Journal of Industrial Organization*, 23 (2005) 703-715. <u>SSRN</u>.
- Werden, Gregory J., Luke M. Froeb and Steven Tschantz, The Effects of Merger Efficiencies on Consumers, *European Competition Journal*, 1:2 (October, 2005) 245-264. <u>SSRN</u>.

- 46. Werden, Gregory and Luke Froeb, The Effects of Mergers in Differentiated Products Industries: Logit Demand and Merger Policy, *Journal of Law, Economics, & Organization,* 10 (1994) 407-426, reprinted in *Antitrust and Competition Policy* (Andrew N. Kleit ed., 2005)
- Cooper, James, Luke Froeb, Daniel O'Brien and Steven Tschantz, Does Price Discrimination Intensify Competition? Implications for Antitrust, *Antitrust Law Journal*, 72:2 (2005) 327-374.
- Froeb, Luke, Daniel Hosken, Janis Pappalardo, Economics Research at the FTC: Information, Retrospectives, and Retailing, *Review of Industrial Organization*, 25:4 (Dec., 2004) 353-374. <u>SSRN</u>
- 49. Werden, Gregory J., Luke M. Froeb, and David T. Scheffman, A *Daubert* Discipline for Merger Simulation, *Antitrust*, 18:3 (Summer, 2004) 89-95.
- 50. Werden, Gregory J., Luke M. Froeb and David T. Scheffman, Whither Merger Simulation?, *Antitrust Source*, (May, 2004).
- Froeb, Luke, Steven Tschantz & Philip Crooke, Bertrand Competition with Capacity Constraints: Mergers Among Parking Lots, *Journal of Econometrics* 113(1) (March, 2003) 49-67.
- Froeb, Luke, and Steven Tschantz, Mergers Among Bidders with Correlated Values in Economic Issues in Measuring Market Power--Contributions to Economic Analysis, Vol. 255, edited by Daniel J. Slottje, Amsterdam: North-Holland Publishing, 2002, 31-46.
- 53. Werden, Gregory, and Luke Froeb, The Antitrust Logit Model For Predicting Unilateral Competitive Effects, *Antitrust Law Journal*, 70(1), (2002).
- 54. Werden, Gregory, and Luke Froeb, Calibrated Economic Models Add Focus, Accuracy, and Persuasiveness to Merger Analysis in the *Pros and Cons of Merger Control*, edited by the Swedish Competition Authority, Swedish Competition Authority, Stockholm, 2002. <u>SSRN</u>
- 55. Froeb, Luke, and Bruce Kobayashi, Evidence Production in Adversarial vs. Inquisitorial Regimes, *Economics Letters* 70(2), (2001) 267-272. <u>SSRN</u>
- 56. Werden, Gregory J., Luke M. Froeb, and James Langenfeld, Lost Profits from Patent Infringement: The Simulation Approach, *International Journal of the Economics of Business*, 7(2) (July, 2000) 213-227.
- 57. Froeb, Luke, Book Review of *Modern Competitive Analysis* by Sharon Oster, *Managerial and Decision Economics*, 21:5 (July-Aug., 2000) 209-210.
- 58. Crooke, Philip, Luke Froeb & Steven Tschantz, Teaching MBA Students to Compete in Simulated Oligopoly Environments, *Interactive Learning*, Vignettes from America's most Wired Campuses, edited by Donald Brown, (Anker Publishing: Bolton, MA, 2000) 141-143.
- 59. Froeb, Luke, and Gregory Werden, An Introduction to the Symposium on the Use of Simulation in Applied Industrial Organization, *International Journal of the Economics of Business*, 7(2) (July, 2000) 133-137.
- Brannman, Lance, and Luke Froeb, Mergers, Cartels, Set-Asides and Bidding Preferences in Asymmetric Second-price Auctions, *Review of Economics and Statistics*, 82(2) (2000) 283-290.
- 61. Tschantz, Steven, Philip Crooke, and Luke Froeb, Mergers in Sealed vs. Oral Auctions, *International Journal of the Economics of Business*, 7(2) (July, 2000) 201-213.
- 62. Werden, Gregory J., Luke M. Froeb, and Lucian Wayne Beavers, Economic Analysis of Lost Profits from Patent Infringement With and Without Noninfringing Substitutes, *American Intellectual Property Law Association Quarterly Journal*, 27 (1999) 305-333. <u>SSRN</u>

- 63. Werden, Gregory J., Lucian Wayne Beavers, and Luke M. Froeb, Quantity Accretion--The Mirror Image of Price Erosion from Patent Infringement, *Journal of the Patent and Trademark Office Society*, 81 (1999) 479-482.
- 64. Crooke, Philip, Luke Froeb, Steven Tschantz, and Gregory Werden The Effects of Assumed Demand Form on Simulated Post-Merger Equilibria, *Review of Industrial Organization*, 15(3), (November, 1999) 205-217.
- 65. Crooke, Philip, Luke Froeb, and Steven Tschantz, Maximum Likelihood Estimation, *Mathematica in Education and Research*, 8(1) (winter, 1999) 17-23.
- 66. Froeb, Luke, Log Spectral Analysis: Variance Components in Asset Prices, in *Computational Economics and Finance: Modeling and Analysis with Mathematica*, edited by Hal Varian (TELOS, Springer-Verlag) 1996.
- 67. Froeb, Luke, and Gregory Werden, Simulating Mergers among Noncooperative Oligopolists, in *Computational Economics and Finance: Modeling and Analysis with Mathematica*, edited by Hal Varian (TELOS, Springer-Verlag) 1996.
- 68. Werden, Gregory, and Luke Froeb, The Entry-Inducing Effects of Horizontal Mergers, Journal of Industrial Economics, 46:4 (1998) 525-543.
- Froeb, Luke and Gregory Werden, A Robust Test for Consumer Welfare Enhancing Mergers Among Sellers of a Homogeneous Product, *Economics Letters*, 58 (1998) 267-269.
- 70. Cooil, Bruce, and Luke Froeb, A Difference Estimator for Testing Equality of Variances for Paired Time Series, *Journal of Time Series Analysis*, 19(3) (May, 1998) 285-290. <u>SSRN</u>:
- 71. Werden, Gregory, and Luke Froeb, Correlation, Causality, and all that Jazz: the Inherent Shortcomings of Price Tests for Antitrust Market Delineation, *Review of Industrial* Organization, 8 (June, 1993) 329-354; reprinted in the Journal of Reprints for Antitrust Law and Economics, 28(1) (1998) p. 175.
- 72. Froeb, Luke and Gregory Werden, Residual Demand Estimation for Market Delineation: Complications and Limitations, *Review of Industrial Organization*, 6 (1991) 33-48, reprinted in the *Journal of Reprints for Antitrust Law and Economics*, 28(1) (1998) p. 357.
- 73. Crooke, Philip, Luke Froeb & Steven Tschantz, Pedagogy using *Mathematica* through the Web *ALN Magazine*, vol. 2:2, Oct., 1998. (<u>link</u>)
- 74. Froeb, Luke, Timothy Tardiff, and Gregory Werden, The Demsetz Postulate and the Effects of Mergers in Differentiated Products Industries, *Economic Inputs, Legal Outputs: The Role of Economists in Modern Antitrust,* London: John Wiley & Sons, edited by Fred McChesney, 1998.
- 75. Crooke, Philip, Luke Froeb & Steven Tschantz, Simulate Mergers On-Line, *Antitrust* 11 (1997) 29.
- 76. Werden, Gregory, Luke Froeb, and Timothy Tardiff, The Use of the Logit Model in Applied Industrial Organization, *International Journal of the Economics of Business*, vol. 3, no. 1, (1996) 85-107.
- 77. Werden, Gregory, and Luke Froeb, Simulation as an Alternative to Structural Merger Policy in Differentiated Products Industries, chapter 4 in *The Economics of the Antitrust Process*, edited by Malcolm Coate and Andrew Kleit, Boston: Kluwer Academic Press, 1996.
- Froeb, Luke, and Bruce Kobayashi, Naive, Biased, yet Bayesian: Can Juries interpret Selectively-Produced Evidence. *Journal of Law, Economics, & Organization,* vol. 12, no. 1 (1996) 257-276; reprinted in *Economics of Evidence, Procedure and Litigation* (edited by Chris W. Sanchirico, Edward Elgar, forthcoming).

- 79. Froeb, Luke, Richard W. Oliver, and David Weiskopf, Geographic Variation in Internet Connectivity, Papers & Proceedings of the Twenty Ninth IEEE *Hawaii International Conference on Systems Sciences*, vol. 29, 1996.
- 80. Froeb, Luke, Book Review of *Business Economics* by Maria Moschandreas, *Managerial and Decision Economics*, 16:1 (Jan-Feb, 1995) 93-94.
- 81. Froeb, Luke, & Robert Koyak, Measuring and Comparing Smoothness in Time Series: The Production Smoothing Hypothesis, *Journal of Econometrics*, 64 (1994) 97-122.
- 82. Froeb, Luke, Robert Koyak & Gregory Werden. What is the Effect of Bid-Rigging on Prices? *Economics Letters*, 42 (1993) 419-423. <u>link</u>
- Evans, William, Luke Froeb, and Gregory Werden, Endogeneity in the Concentration-Price Relationship: Causes, Consequences, and Cures, *Journal of Industrial Economics*, 41 (September, 1993) 1-8.
- 84. Froeb, Luke, The Adverse Selection of Cases for Trial, *International Review of Law and Economics*, 13(3), (June, 1993) 317-324
- 85. Froeb, Luke and Gregory Werden, The Reverse Cellophane Fallacy in Market Delineation, *Review of Industrial Organization*, 7 (1992) 241-247.
- 86. Froeb, Luke, Evaluating Mergers in Durable Goods Industries, *Antitrust Bulletin*, 34 (Spring, 1989) 99-119.
- 87. Froeb, Luke, and John Geweke, Long Run Competition in the Post-war U.S. Aluminum Industry, *International Journal of Industrial Organization*, 5 (1987)

Software

- Crooke, Philip, Luke Froeb, and Steven Tschantz, SimMergerTM, a series of *Mathematica* packages that simulates the effects of horizontal mergers in Bertrand and Auction models, commissioned by the U.S. Department of Justice (1998), implemented in Charles Taragin's R-code, CompetitonToolbox.com, developed under my direction at the Dept of Justice.
- Froeb, Luke, *Click&Learn Regression*, interactive software that teaches regression analysis to lay persons (1993), avail at <u>http://trialandstderror.com/</u>,

Policy Advocacy

2020

• **Public Comments on Proposed Vertical Merger Guidelines** Comments of Gregory Werden and Luke Froeb before the <u>FTC/DOJ</u>.

2009

• Ticketmaster/LiveNation Merger

<u>Written Testimony</u> of Luke Froeb before the House Subcommittee on Courts and Competition Policy on the Ticketmaster/Live Nation Proposed Merger.

2006

• Antitrust, per se Unlawfulness of Resale Price Maintenance

Brief of *Amici Curiae* Economists in Support of Petitioner, et al., Leegin. v. PSKS, 75 U.S.L.W. 3207 (U.S. Nov. 3, 2006) (No. 06-480) (On Writ of Certiorari to the United States Court of Appeals for the Fifth Circuit).

• FCC, Media Ownership Rules

2006 Quadrennial Regulatory Review—Review of the Commission's Broadcast Ownership Rules and Other Rules Adopted Pursuant to Section 202 of the Telecommunications Act of 1996, MB Docket No. 06-121, Joint Declaration of Luke Froeb, Padmanabhan Srinagesh and Michael Williams in support of Comments of Hearts-Argyle Television, Inc.

• Antitrust, Burden of Proof

Brief of *Amici Curiae* Economists in Support of Petitioner, et al., Bell Atl. Corp. v. Twombly, 74 U.S.L.W. 3517 (U.S. Apr. 6, 2006) (No. 05-1126) (On Writ of Certiorari to the United States Court of Appeals for the Second Circuit).

• WSJ Editorial supporting certiorari

2005

• Fraud, Government Symbols

FTC Staff Comment to the United States Mint Concerning Civil Penalties for Misuse of Mint Words, Letters, Symbols, and Emblems (Mar. 2005) (<u>V050005</u>)

o <u>News Release</u>x

• Optometry

FTC Staff Comment to the Honorable Harry R. Purkey Concerning Virginia H.B. 2518, H.B. 160, and S.B. 272 Relating to the Practice of Optometry (Mar. 2005) (<u>V050004</u>) • <u>News Release</u>

• Health Care, Pharmacy Benefit Managers

FTC Staff Comment to the Honorable Richard L. Brown Concerning North Dakota H.B. 1332 to Regulate the Contractual Relationship Between Pharmacy Benefit Managers and Covered Entities (Mar. 2005) (<u>V050003</u>)

- o <u>News Release</u>
- o <u>News Release</u>

2004

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• Contact Lenses

FTC Staff Comment to the Honorable Doug Matayo Concerning Arkansas H.B. 2286 and the Fairness to Contact Lens Consumers Act and Contact Lens Rule (Oct. 2004) (<u>V040026</u>)

o <u>News Release</u>

Housing, Real Estate

FTC Staff and Department of Justice Antitrust Division Comment to the Honorable Paul Kujawski Concerning Proposed Massachusetts H.B. 180 to Authorize Non-Attorneys to Perform Certain Real Estate Settlement Services (Oct. 2004) (<u>V040025</u>)

o <u>News Release</u>

• Health Care, Pharmacy Benefit Managers

FTC Comment to the Honorable Greg Aghazarian Concerning California A.B. 1960 Requiring Pharmacy Benefit Managers to Make Specified Disclosures to "Purchasers" and "Prospective Purchasers" Regarding Revenues and Drug Formularies (Sep. 2004) (V040027)

o <u>News Release</u>

• Labeling, Food

FTC Staff Comment Before the Food and Drug Administration Concerning Nutrient Claims (Jul. 2004) (<u>V040020</u>)

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• Gasoline

FTC Staff Comment to the Honorable Gene DeRossett Concerning Michigan H.B. 4757, the "Petroleum Marketing Stabilization Act" (Jun. 2004) (<u>V040019</u>)

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• Labeling, Pharmaceuticals, Medical Devices

FTC Staff Comment Before the Food and Drug Administration Concerning Consumer-Directed Promotion (May 2004) (<u>V040016</u>)

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- Labeling, Food

FTC Staff Comment Before the Food and Drug Administration Concerning Food Labeling: Trans Fatty Acids in Nutrition Labeling (Apr. 2004) (<u>V030017</u>)

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- Health Care, Pharmaceuticals

FTC Staff Comment to the Honorable Patrick C. Lynch and Honorably Juan M.

Pichardo Concerning the Competitive Effects of Rhode Island General Assembly Bills Containing Pharmaceutical "Freedom of Choice" and "Any Willing Provider" Provisions (Apr. 2004) (<u>V040013</u>)

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• Funeral Homes

FTC Staff Comment to the Honorable Joanne C. Benson Concerning Maryland H.B. 795 Regarding Corporate Ownership of Funeral Homes (Apr. 2004) (<u>V040011</u>)

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• Internet Commerce, Contact Lenses

Possible Anticompetitive Barriers to E-Commerce: Contact Lenses: A Report from the Staff of the Federal Trade Commission (Mar. 2004) (V040007)

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• Internet Commerce, Alcohol

FTC Staff Comment to the Honorable William Magee et al. Concerning New York A.B. 9560-A; S.B. 606-A; and S.B. 1192 to Allow Out-of State Vendors to Ship Wine Directly to New York Consumers (Mar. 2004) (<u>V040012</u>)

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FTC Staff Comment to the Honorable Les Donovan Concerning Kansas H.R. 2330 Prohibiting a "Marketer" or "Retailer" From Selling Motor Fuel Below Cost (Mar. 2004) (<u>V040009</u>)

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Gasoline

FTC Staff Comment to the Honorable Demetrius C. Newton Concerning the Alabama Fuels Marketing Act (Jan. 2004) (V040005)

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• Labeling, Food

FTC Staff Comment Before the Food and Drug Administration Concerning Labeling: Health Claims; Dietary Guidance (Jan. 2004) (<u>V040006</u>)

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• Commodity Future Exchanges

FTC Comment Before the Commodity Futures Trading Commission Regarding the Application of U.S. Futures Exchange, LLC for Contract Market Designation (Jan. 2004) (V040004)

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