

Topic of Empirical Industrial Economics Spring 2024 (Temporary)

Instructor: Yi Lee

Office: TSMC 812

Email: ylee@mx.nthu.edu.tw

Office Hour: M 12pm-1:30pm

Course Description

This course will cover some recent empirical I.O. models. The first two parts will focus on the estimation of demand function and firm productivity (supply shocks). We then introduce the empirical models of firm price and non-price competition in the product market. The final section will examine the static entry models and firm dynamic decisions. If undergraduate students want to take this course, econometrics (at least one semester) is prerequisite.

Grading

TBA

Reading List

Overview Books/Papers

Einav, Liran and Jonathan Levin (2010): “Empirical Industrial Organization: A Progress Report”, *Journal of Economic Perspectives*, Vol. 24, No. 2, pp.145-162.

Perloff, Jeffrey, Larry Karp, and Amos Golan *Estimating Market Power and Strategies*.

*Aguirregabiria, Victor *Empirical Industrial Organization: Models, Methods, and Applications*, manuscript(2021).

<https://app.scholarsite.io/victor-aguirregabiria/articles/empirical-industrial-organization-models-methods-and-applications>

De Loecker, Jan and Syverson, Chad *An Industrial Organization Perspective on Productivity*, NBER working paper, no.29229

Berry, Steven and Haile, Philip *Foundations of Demand Estimation*, NBER working paper, no.29305

Akerberg, Daniel, Lanier Benkard, Steven Berry and Ariel Pakes: “Econometric Tools for Analyzing Market Outcomes”, *Handbook of Econometrics*, Vol. 6.
<http://scholar.harvard.edu/files/pakes/files/tools81.pdf>

Berry, Steven and Peter Reiss: “Empirical Models of Entry and Market Structure”, *Handbook of Industrial Organization*, Vol. 3.
<http://www.econ.yale.edu/~steveb/Econ601/entryhand.pdf>

1 Demand Function Estimations

*Aguirregabiria, Victor *Empirical Industrial Organization: Models, Methods, and Applications*, Ch.2.

*Bresnahan, Timothy (1987): “Competition and Collusion in the American Automobile Industry: the 1995 Price War”, *Journal of Industrial Economics*, Vol. 35, No. 4, pp. 457-482.

*Berry, Steven (1994): “Estimating Discrete Choice Models of Product Differentiation”, *Rand Journal of Economics*, Summer 1994, pp. 242-262.

*Berry, Steven, James Levinsohn and Ariel Pakes (1995): “Automobile Prices in Market Equilibrium”, *Econometrica*, July 1995, pp. 841-890.

*Hausman, J., (1996): “Valuation of New Goods Under Perfect and Imperfect Competition,” *The Economics of New Goods*, *Studies in Income and Wealth* Vol.58.

Nevo, Aviv (2000): “A Practitioner’s Guide to Estimate of Random-Coefficients Logit Models of Demand”, *Journal of Economics and Management Strategy*, Vol. 9, No. 4, pp. 513-548.

*Nevo, Aviv (2011): “Empirical Models of Consumer Behavior,” *Annual Review of Economics*, Vol. 3, pp.51-75.

*Goldberg, Pinelopi Koujianou (1995): “Product Differentiation and Oligopoly in International Markets: The Case of the U.S. Automobile Industry”, *Econometrica*, Vol. 63, No. 4, pp. 981-951.

*Petrin, Amil (2002): “Quantifying the Benefits of New Products: The Case of the Minivan”, *Journal of Political Economy*, 110(4), pp. 705-729.

Cosar, K., P. Grieco, S. Li and F. Tintelnot (2017): “What Drives Home Market Advantage?”, *Forthcoming in Journal of International Economics*.

Rysman, Marc (2004): “Competition Between Networks: A Study of the Market for Yellow Pages”, *Review of Economic Studies*, Vol. 71, pp. 483-512.

Ackerberg, Daniel (2001): “Empirically Distinguishing Informative and Prestige Effects of Advertising”, *Rand Journal of Economics*, Summer 2001, pp. 316-333.

2 Productivity Measures and Production Estimation

*Aguirregabiria, Victor *Empirical Industrial Organization: Models, Methods, and Applications*, Ch.3.

*Syverson, Chad (2011): “What Determines Productivity?” *Journal of Economic Literature*, 49(2), pp. 326-365.

*Olley, Steven and Ariel Pakes (1996): “The Dynamics of Productivity in the Telecommunications Equipment Industry” *Econometrica*, 64(6), pp. 1263-1297.

*Levinsohn, James and Amil Petrin (2003): “Estimating Production Functions Using Inputs to Control for Unobservables” *Review of Economic Studies*, Vol. 70, No. 2, pp. 317-341.

Pacvnik, N. (2002): “Trade Liberalization, Exit and Productivity Improvements: Evidence from Chilean Plants” *Review of Economic Studies*, 69, pp. 245-276.

*Ackerberg, D., Caves, K. and Frazer, G. (2015): “Identification Properties of Recent Production Function Estimators,” *Econometrica*, Vol. 83, No. 6, pp.2411-2451.

*Gandhi, Amit, Salvador Navarro, David Rivers (2017): “On the Identification of Gross Output Production Functions,” *forthcoming in Journal of Political Economy*.

*Doraszelski, Ulrich and Jordi Jaumandreu (2013): “R&D and productivity: Estimating endogenous productivity” *Review of Economic Studies*, Vol. 80, pp.1338-1383.

Doraszelski, Ulrich and Jordi Jaumandreu (2016): “Measuring the Bias of Technological Change” *forthcoming in Journal of Political Economy*.

Aw, Bee-Yan, Mark J. Roberts and Daniel Xu (2011): “R&D Investments, Exporting and Productivity Evolution” *American Economic Review*, 101, pp. 1312-1344.

*Peters, Bettina, Mark Roberts, Van Anh Vuong, Helmut Fryges (2017): “Estimating Dynamic R&D Demand: An Analysis of Costs and Long-run Benefits” *The Rand Journal of Economics*, 48(2), pp. 409-437.

*De Locker, Jan (2011): “Product Differentiation, Multi-Product Firms and Estimating the Impact of Trade Liberalization on Productivity” *Econometrica*, Vol. 79, No. 5, pp. 1407-1451.

Blum, Bernardo S., Sebastian Claro, Ignatius Horstman, and David A. Rivers (2017): “The Effects of Foreign and Domestic Demand Heterogeneity on Firm Dynamics with Implications to Aggregate Productivity and Trade,” *Working paper*.

Grieco, Paul, Shengyu Li, and Hongsong Zhang (2016): “Production Function Estimation with Unobserved Input Price Dispersion,” *International Economic Review*, 57(2), pp.665-690.

3 Static Empirical Models—Competition in price and Quantity

3.1 Estimate Marking Power

*Aguirregabiria, Victor *Empirical Industrial Organization: Models, Methods, and Applications*, Ch.4.

Bresnahan, Timothy (1989): “Empirical Studies of Industries with Market Power”, *Handbook of Industrial Organization*, Vol.2, Chapter 17, pp. 1011-1057.

*Bresnahan, Timothy (1982): “The Oligopoly Solution Concept is identified”, *Economics Letters*, pp. 87-92.

*Applebaum, Elie (1982): “The Estimation of the Degree of Oligopoly Power”, *Journal of Econometrics*, Vol. 19, pp. 287-299.

*Hall, Robert (1988): “The Relation Between Price and Marginal Cost in U.S. Industry”, *Journal of Political Economy*, vol. 96, no. 5, pp. 921-947.

*Klette, Tor Jakob (1999): “Market Power, Scale Economies and Productivity: Estimates from a Panel of Establishment Data”, *The Journal of Industrial Economies*, vol. 47, no. 4, pp. 451-476.

*Nevo, Aviv (2001): “Measuring Market Power in the Ready-to-Eat Cereal Industry”, *Econometrica*, Vol. 69, pp. 307-342.

*Genesove, Davis and Wallace P. Mullin (1998): “Testing Static Oligopoly Models: Conduct and Cost in the Sugar Industry, 1890-1914”, *RAND Journal of Economics*, 29(2), pp. 355-377.

3.2 Firm Markup

*De Locker, Jan, Jan Eeckjout and Gabriel Unger (2020): “ The Rise of Market Power and The Macroeconomic Implications,” *The Quarterly Journal of Economics*, Vol. 135, No. 2, pp.561-644.

*De Locker, Jan and Frederic Warzynski (2012): “ Markups and Firm-level Export Status,” *The American Economic Review*, Vol. 102, No. 6, pp.2437-2471.

De Locker, Jan (2011): “Recovering Markups from Production Data,” *International Journal of Industrial Organization*, 29, pp.350-355.

Roberts, Mark, Daniel Yi Xu, Xiaoyan Fan and Shengxing Zhang (2011): “A Structural Model of Demand, Cost, and Export Market Selection for Chinese Footwear Producers,” *manuscript, Duck University*.

De Locker, Jan and Johannes Van Biesebroeck (2015): “ The Effect of International Competition on Firm Productivity and Market Power,” *Manuscript, Requested by Oxford Handbook of Productivity Analysis*.

De Locker, Jan and Paul T. Scott (2016): “ Estimating Market Power Evidence from the U.S. Brewing Industry,” *Manuscript, KU Leuven*.

De Locker, Jan, P. Goldberg, A. Khandelwal and N. Pavcnik (2016): “Prices, Markups and Trade Reform,” *Econometrica*, 84(2), pp. 445-510.

3.3 Collusion

*Porter, R.H. (1983): “A Study of Cartel Stability: The Joint Executive Committee, 1880-1886”, *Bell Journal of Economics*, Vol. 14, No. 2, pp. 301-314.

*Ellison, Glenn (1994): “Theories of Cartel Stability and the Joint Executive Committee”, *Rand Journal of Economics*, Spring 1994, pp. 37-57.

*Sweeting, Andrew (2007): “Market Power in the England and Wales Wholesale Electricity Market 1995-2000”, *Economic Journal*, 117, pp.654-685.

Knittel, Christopher and Victor Stango (2003): “Price Ceilings as Focal Points for Tacit Collusion: Evidence from Credit Cards,” *American Economic Review*, December 2003, pp. 1703-1729.

3.4 Price Discrimination

*Shepard, Andrea (1991): “Price Discrimination and Retail Configuration”, *Journal of Political Economy*, Vol. 99, No. 1, pp. 30-53.

Leslie, Phillip (2004): “Price Discrimination in Broadway Theater”, *Rand Journal of Economics*, 35(3), pp. 520-541.

*Verboven, Frank (2004): “Quality-Based Price Discrimination and Tax Incidence: Evidence from Gasoline and Diesel Cars,” *Rand Journal of Economic*, Summer 2002, pp. 275-297.

Busse, Meghan and Marc Rysman (2005): “Competition and Price Discrimination in Yellow Pages Advertising,” *Rand Journal of Economics*, Summer 2005, pp. 378-390.

4 Empirical Model of Static Entry

*Aguirregabiria, Victor *Empirical Industrial Organization: Models, Methods, and Applications*, Ch.5.

*Ellickson, Paul and Misra, Sanjog (2011): “Estimating Discrete Games,” *Marketing Science*, 30(6), pp. 997-1010.

*Bresnahan, T. and P. Reiss (1991): “Entry and Competition in Concentrated Markets”
Journal of Political Economy, Vol. 99, No. 5, pp. 977-1009.

*Berry, Steven (1992): “Estimation of a Model of Entry in the Airline Industry”,
Econometrica, Vol. 60, No. 4, pp. 889-917.

*Seim, Katja (2006): “An Empirical Model of Firm Entry with Endogenous Product-type Choices”
Rand Journal of Economics, Autumn 2006, pp. 619-640.

*Bajari, Patrick, Han Hong and Denis Nekipelov (2010): “Game Theory and Econometrics: A Survey of Some Recent Research,”
Advances in Economics and Econometrics, Tenth World Congress Vol. 3, pp. 3-52

*Jia, Panle (2008): “What Happens When Wal-Mart Comes to Town: An Empirical Analysis of the Discount Retailing Industry”
Econometrica, 76(6), pp.1263-1316.

5 Dynamic Model

*Adda, Jerome and Russell Cooper (2003): *Dynamic Economics, Chapters 2 and 3*.

*Aguirregabiria, Victor and Pedro Miro (2010): “Dynamic Discrete Choice Structural Models: A Survey”
Journal of Econometrics, 156(1), pp. 38-67.

Rust, J. (1987): “Optimal Replacement of GMC Bus Engines: A Empirical Model of Harold Zurcher,”
Econometrica, 55, pp. 999-1033.

Ryan, Stephen (2012): “The Costs of Environmental Regulation in a Concentrated Industry”
Econometrica, 80(3), pp. 1019-1061.

Pakes, Ariel and Richard Ericson (1995): “Markov Perfect Industry Dynamics: A Framework for Empirical Work”
Review of Economic Studies, January 1995, pp. 53-82.