

450-2: INDUSTRIAL ORGANIZATION II

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This is the second course in the graduate IO sequence. Most of the course will consider what determines market structure and the ability of firms to act strategically, in choosing their prices, products or advertising, to affect market structure and market outcomes. The first part of the course will consider search and advertising that may complicate the simple price-setting games considered in 450-1. We will cover theory, empirical techniques and empirical evidence.

Course Web Page: problem sets, solutions and any other materials will be posted on Blackboard.

Requirements: There are several requirements which will affect the final grade.

1. completion of several assigned problem sets (15%);
2. participation in class discussions of assigned papers (20%);
3. *either* a final exam (March 14 3-5) *or* completion of a research paper (65%).

The paper option is highly encouraged for students intending to do research in IO or a closely-related field (e.g., marketing, corporate finance). The paper must be on an IO-related topic but it need not be on a topic covered in my course. If you wish to write a paper you should send me a single page description of the topic in the first couple of weeks, then write a 4-5 page progress report by roughly the sixth week of the quarter. The paper is due at the end of exam week.

I am happy for students to take the course “not for credit” but I expect participate in the class discussion of assigned papers.

Reading: Much of the theory is covered in

J. Tirole, *The Theory of Industrial Organization*, MIT, 1988 (Tirole)

The list of papers for each topic is fairly long in order to provide a reference list for those who want to do IO research. The length of each section of the list is not necessarily correlated with the importance of the topic or the time we will spend in class. Feel free to suggest additional papers based on your own reading.

The *** papers are required for the exam. Note that I’ll issue an updated list before the final as the “exam required” papers may change.

The following abbreviations may be used for journal titles:

AER American Economic Review	JET Journal of Economic Theory
BJE Bell Journal of Economics	JIE Journal of Industrial Economics
EMA Econometrica	JLE Journal of Law and Economics
EJ Economic Journal	JPE Journal of Political Economy
IJO International Journal of Industrial Organization	QJE Quarterly Journal of Economics
JE Journal of Econometrics	RJE Rand Journal of Economics
JEH Journal of Economic History	ReStat Review of Economics & Statistics
JEL Journal of Economic Literature	ReStud Review of Economic Studies
JEMS Journal of Economics & Management Strategy	

1. Search & Price Dispersion

a. Theory

P. Diamond, "A Model of Price Adjustment", Journal of Economic Theory, 1971, 3, 156-168

H. Varian, "A Model of Sales," American Economic Review, 1980, 70, 651-658,

<http://links.jstor.org/sici?sici=0002-8282%28198009%2970%3A4%3C651%3AAMOS%3E2.0.CO%3B2-A>

D. Stahl, "[Oligopolistic Pricing with Heterogeneous Consumer Search](#)," International Journal of Industrial Organization, 1996, 14, 243-268,

R.P. McAfee, "Multiproduct Equilibrium Price Dispersion," Journal of Economic Theory, 1995, 67 (1), 83-105

M. Baye and J. Morgan, "Information Gatekeepers on the Internet and the Competitiveness of Homogeneous Product Markets," AER, 2001, 91(3), 454-474

b. Evidence

*** A. Sorensen, "Equilibrium Price Dispersion in Retail Markets for Prescription Drugs," Journal of Political Economy, 2000, 108, 833-850,

<http://www.journals.uchicago.edu/JPE/journal/issues/v108n4/008408/008408.web.pdf>

A. Sorensen, "Price Dispersion and Heterogeneous Consumer Search for Retail Prescription Drugs," mimeo, <http://www.stanford.edu/~asorensen/papers/search.pdf>

G. Ellison and S. Ellison, "Search, Obfuscation, and Price Elasticities on the Internet," mimeo, <http://web.mit.edu/gellison/www/search.pdf>

H. Hong and M. Shum, "Using Price Distributions to Estimate Search Costs", RJE, 2006, 37(2), 257-275
<http://www.econ.jhu.edu/people/shum/papers/price.pdf>

*** A. Hortacsu and C. Syverson, "Product Differentiation, Search Costs and Competition in the Mutual Fund Industry", QJE, 2004, 119(2), 403-456

<http://juno.ingentaselect.com.turing.library.northwestern.edu/vl=1460736/cl=86/nw=1/fm=docpdf/rpsv/cw/mitpress/00335533/v119n2/s2/p403>

2. Advertising

a. Theory

Tirole, 2.2-2.4, 7.3

K. Bagwell, "The Economic Analysis of Advertising", <http://www.columbia.edu/%7Ekwb8/Adchap2003-combined.pdf>

G.S. Becker and K.M. Murphy, "A Simple Theory of Advertising as a Good or Bad", QJE, 1993, 941-964, <http://links.jstor.org/sici?sici=0033-5533%28199311%29108%3A4%3C941%3AASTOAA%3E2.0.CO%3B2-4>

P. Milgrom and J. Roberts, "Price and Advertising Signals of Product Quality", JPE, 1986, 94, 796-821, <http://links.jstor.org/sici?sici=0022-3808%28198608%2994%3A4%3C796%3APAASOP%3E2.0.CO%3B2-2>

b. Empirical Evidence

*** D. Akerberg "Empirically Distinguishing Informative and Prestige Effects of Advertising," Rand Journal of Economics, 2001, 32(2), 316-333, <http://search.epnet.com.turing.library.northwestern.edu/login.aspx?direct=true&AuthType=cookie,ip,url,uid&db=buh&an=4836684>

L. Benham, "The Effects of Advertising on the Price of Eyeglasses", Journal of Law and Economics, 1972, 337-52, <http://links.jstor.org/sici?sici=0022-2186%28197210%2915%3A2%3C337%3ATEOAOT%3E2.0.CO%3B2-A>

*** G. Jin and P. Leslie "The Effects of Disclosure Regulation: Evidence from Restaurants." Quarterly Journal of Economics, 2003, 409-51, <http://konstanza.ingentaselect.com.turing.library.northwestern.edu/vl=1426783/cl=18/nw=1/fm=docpdf/rpsv/cw/mitpress/00335533/v118n2/s2/p409>

J. Milyo. and J. Waldfogel, "The Effect of Price Advertising on Prices: Evidence in the Wake of 44 Liquormart," American Economic Review, 1999, 89, 1081-96, <http://www.jstor.org/view/00028282/ap000007/00a00030/0?config=jstor&frame=noframe&userID=12aa00bc@mit.edu/01cc99333c0050da216d&dpi=3>

J. Rizzo and R. Zeckhauser, "Advertising and Entry: The Case of Physician Services," Journal of Political Economy, 1990, 476-500, <http://links.jstor.org/sici?sici=0022-3808%28199006%2998%3A3%3C476%3AAAETCO%3E2.0.CO%3B2-H>

R. Sauer and K. Leffler, "Did the Federal Trade Commission's Advertising Substantiation Program Promote More Credible Advertising?", American Economic Review, 1990, 191-203, <http://links.jstor.org/sici?sici=0002-8282%28199003%2980%3A1%3C191%3ADTFTCA%3E2.0.CO%3B2-Y>

3. Market Structure

a. Theory

Tirole, Sections 7.1-7.2

J. Panzar, "Technological Determinants of Firm and Industry Structure", HIO, vol. 1 chp. 1

What are the welfare effects of more firms?

N.G. Mankiw and M.D. Whinston, "Free Entry and Social Inefficiency," RAND Journal of Economics, 1986, 48-58, <http://links.jstor.org/sici?sici=0741-6261%28198621%2917%3A1%3C48%3AFEASI%3E2.0.CO%3B2-O>

Why determines the degree of product differentiation? Is it optimal?

S. Anderson, A. de Palma, and J. F. Thisse, Discrete Choice Theory of Product Differentiation, Chapters 6-9, Cambridge: MIT Press, 1992

S. Anderson, A. de Palma, and Y. Nesterov, "Oligopolistic Competition and the Optimal Provision of Products," *Econometrica*, Vol. 63, No. 6, November 1995, pp. 1281-1302, <http://links.jstor.org/sici?sici=0012-9682%28199511%2963%3A6%3C1281%3AOCATOP%3E2.0.CO%3B2-L>

P. Klemperer and A. Padilla, "Do Firms' Product Lines Include Too Many Varieties?," *RJE*, 28(3), pp. 472-488. <http://links.jstor.org/sici?sici=0741-6261%28199723%2928%3A3%3C472%3ADFPLIT%3E2.0.CO%3B2-5>

E. Prescott and M. Visscher, "Sequential Location among Firms with Foresight", *Bell Journal of Economics*, 1977, 378-39, <http://links.jstor.org/sici?sici=0361-915X%28197723%298%3A2%3C378%3ASLAFWF%3E2.0.CO%3B2-N>

A. Dixit and J. Stiglitz, "Monopolistic Competition and Optimal Product Diversity", *AER*, 1977, 297-308, <http://links.jstor.org/sici?sici=0002-8282%28197706%2967%3A3%3C297%3AMCAOPD%3E2.0.CO%3B2-%23>

P. Steiner, "Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting", 1952, *QJE*, 66(2), 194-223, <http://links.jstor.org/sici?sici=0033-5533%28195205%2966%3A2%3C194%3APPAPAT%3E2.0.CO%3B2-Z>

How does the number of firms change as market size increases?

J. Sutton, *Sunk Costs and Market Structure*, 1991, MIT Press, chapters 1-3 and industry studies in chapters 6, 8, 9

J. Sutton, *Technology and Market Structure*, 2001, MIT Press

J. Sutton, "One Smart Agent", *RJE*, 1997, 605-628, <http://links.jstor.org/sici?sici=0741-6261%28199724%2928%3A4%3C605%3AOSA%3E2.0.CO%3B2-N>

T. Bresnahan, "Sutton's Sunk Costs and Market Structure: Price Competition, Advertising, and the Evolution of Concentration: Review Article," *RJE*, 1992, 23(1), 137-52,

A. Shaked and J. Sutton, "Multiproduct Firms and Market Structure", *RJE*, 1990, 45-62 <http://links.jstor.org/sici?sici=0741-6261%28199021%2921%3A1%3C45%3AMFAMS%3E2.0.CO%3B2-7>

A. Shaked and J. Sutton, "Natural Oligopolies", *EMA*, 51(5), 1469-1484 <http://links.jstor.org/sici?sici=0012-9682%28198309%2951%3A5%3C1469%3ANO%3E2.0.CO%3B2-3>

Size Distribution of Firms

J. Sutton, "Gibrat's Legacy", *JEL*, 1992, 35(1), 40-59, <http://links.jstor.org/sici?sici=0022-0515%28199703%2935%3A1%3C40%3AGL%3E2.0.CO%3B2-C>

(more details of Sutton's model of the size distribution are contained in *Technology and Market Structure* and an LSE STICERD working paper EI/9 "The Size Distribution of Businesses, Part I", 1995)

H. Simon and C. Bonini, "The Size Distribution of Business Firms", *AER*, 1958, 48(4), 607-17, <http://links.jstor.org/sici?sici=0002-8282%28195809%2948%3A4%3C607%3ATSDOBF%3E2.0.CO%3B2-3>

R. Lucas, "On the Size Distribution of Business Firms", *Bell Journal*

of Economics, 1978, 9(2), 508-523, <http://links.jstor.org/sici?sici=0361-915X%28197823%299%3A2%3C508%3AOTSDOB%3E2.0.CO%3B2-S>

B. Jovanovic, "Selection and the Evolution of Industry," *Econometrica*, 1982, 649-670, <http://links.jstor.org/sici?sici=0012-9682%28198205%2950%3A3%3C649%3ASATEOI%3E2.0.CO%3B2-O>

L. Cabral and J. Mata, "On the Evolution of the Size Distribution: Facts and Theory", *American Economic Review*, 2003, 93(4), 1075-90, <http://pages.stern.nyu.edu/~lcabral/papers/AER%202003.pdf>

PS Set: theory, size distribution, Dube, B&W regression

b. Empirical

T. Dunne, M. Roberts and L. Samuelson, "Patterns of Firm Entry and Exit in US Manufacturing", 1988, *RJE*, 495-515, <http://links.jstor.org/sici?sici=0741-6261%28198824%2919%3A4%3C495%3APOFEAE%3E2.0.CO%3B2-0>

S. Klepper, "Entry, Exit, Growth and Innovation over the Product Life Cycle", *AER*, 1996, 86(3), 562-583, <http://links.jstor.org/sici?sici=0002-8282%28199606%2986%3A3%3C562%3AEEGAIO%3E2.0.CO%3B2-I>

B. Bronnenberg, S.K. Dhar and J-P Dube, "Endogenous Sunk Costs and the Geographic Distribution of Brand Shares in Consumer Package Goods Industries", mimeo, 2005, <http://www.nber.org/~confer/2005/ios05/dube.pdf>

*** P. Ellickson, "Supermarkets as A Natural Oligopoly", mimeo, 2004, <http://www.econ.duke.edu/~paule/SupermarketsAsNO.pdf>

P. Davis, "Entry, Cannibalization and Bankruptcy in the U.S. Motion Picture Exhibition Market," manuscript, London School of Economics, 2002, <http://web.mit.edu/pjdavis/www/papers/EntryMovies.pdf>

M. Kyle "Entry in Pharmaceutical Markets," mimeo, Carnegie Mellon University, 2002, http://www.duke.edu/~mkyle/Firm_characteristics_and_entry.pdf

F. Scott-Morton, "Entry Decisions in the Generic Pharmaceutical Industry," *Rand Journal of Economics*, 1999, 421-440, <http://links.jstor.org/sici?sici=0741-6261%28199722%2928%3A2%3C269%3ATS RBPF%3E2.0.CO%3B2-F>

A. Sweeting, "Music Variety, Station Listenership and Station Ownership in the Radio Industry" mimeo, Northwestern http://www.faculty.econ.northwestern.edu/faculty/sweeting/ASweeting_VarietyAug05.pdf

S. Berry and J. Waldfogel, "Do Mergers Increase Product Variety? Evidence from Radio Broadcasting", *QJE*, 2001, 1009-1025 <http://thesis.ingentaselect.com.turing.library.northwestern.edu/v1=960408/cl=18/nw=1/rpsv/cw/mitpress/00335533/v116n3/s7/p1009>

S. Borenstein and J. Netz, "Why Do All the Flights Leave at 8 a.m.? Competition and Departure-Time Differentiation in Airline Markets," *International Journal of Industrial Organization*, 1999, 611-640

also relevant are the many case studies in the Sutton books

4. Games where Firms Make Discrete Choices (“Entry Models”)

a. Static Games

D. Andrews, S. Berry and P. Jia, “Placing Bounds on Parameters of Entry Games in the Presence of Multiple Equilibria,” mimeo, Yale University, 2005

P. Bajari, H. Hong and S. Ryan, “[Identification and Estimation of Discrete Games of Complete Information](#)”, mimeo, Duke University, 2004

S. Berry, “[Estimation of a Model of Entry in the Airline Industry](#)”, EMA, 1992, 889-918,

T. Bresnahan and P. Reiss, “Entry in Monopoly Markets,” Review of Economic Studies, 1990, 531-53, <http://links.jstor.org/sici?sici=0034-6527%28199010%2957%3A4%3C531%3AEIMM%3E2.0.CO%3B2-2>

*** T. Bresnahan and P. Reiss, “Entry and Competition in Concentrated Markets,” Journal of Political Economy, 99 (October 1991), pp. 977-1009, <http://links.jstor.org/sici?sici=0022-3808%28199110%2999%3A5%3C977%3AEACICM%3E2.0.CO%3B2-M>

T. Bresnahan, and P. Reiss, “Econometric Models of Discrete Games,” Journal of Econometrics, 1991, 57-81

Comments on Bresnahan and Reiss, Brookings Papers on Economic Activity: Special Issue on Microeconomics, 3 (1987), pp. 872-882 <http://links.jstor.org/sici?sici=0007-2303%281987%291987%3A3%3C833%3ADECVAM%3E2.0.CO%3B2-7>.

F. Ciliberto and E. Tamer, “Market Structure and Multiple Equilibria in Airline Markets,” mimeo, Northwestern University, 2003 <http://oddjob.econ.northwestern.edu/papers/market.pdf>

E. Tamer, “Incomplete Simultaneous Discrete Response Model with Multiple Equilibria,” Review of Economic Studies, 2003, 147-165, <http://juno.ingentaselect.com.turing.library.northwestern.edu/vl=2783491/cl=31/nw=1/rpsv/ij/bpl/00346527/v70n1/s6/p147>

O. Toivannen and M. Waterson, “Market Structure and Entry: Where's the Beef?” University of Warwick WP no. 593, 2001, <http://www2.warwick.ac.uk/fac/soc/economics/research/papers/twerp593.pdf>

P. Jia, “What Happens When Wal-Mart Comes to Town? An Empirical Analysis of the Discount Retailing Industry”, mimeo, 2005, http://pantheon.yale.edu/~pj43/JobMarketPaper_Dec05.pdf

G.S. Crawford and M. Shum, “Empirical Modeling of Endogenous Quality Choice: The Case of Cable Television,” mimeo, Johns Hopkins University, 2001, <http://www.econ.jhu.edu/people/shum/papers/endog.pdf>

L. Einav “Not All Rivals Look Alike: Estimating an Equilibrium Model of the Release Date Timing Game,” mimeo, Stanford University, 2004, http://www.stanford.edu/~leinav/Discrete_Games.pdf

M. Mazzeo, “Product Choice and Oligopoly Market Structure,” RAND Journal of Economics,

2002, 221-42,

<http://search.epnet.com.turing.library.northwestern.edu/login.aspx?direct=true&AuthType=cookie.ip.url,u id&db=buh&an=6817375>

K. Seim, "[Spatial Differentiation and Firm Entry: The Video Retail Industry](#)," mimeo, Stanford University

A. Sweeting, "Coordination Games, Multiple Equilibria and the Timing of Radio Commercials" mimeo, Northwestern, http://faculty.econ.nwu.edu/faculty/sweeting/ASweeting_MultipleEquilibriaApr04.pdf

*** S. Berry and J. Waldfogel, "Free Entry and Social Inefficiency in Radio Broadcasting" Rand Journal of Economics, 30 (Autumn 1999), 397-420, <http://search.epnet.com.turing.library.northwestern.edu/login.aspx?direct=true&AuthType=cookie.ip.url,u id&db=buh&an=2206144>

A. Pakes, J. Porter, K. Ho and J. Ishii, "Moment Inequalities and their Application", mimeo, Harvard, 2005, http://post.economics.harvard.edu/faculty/pakes/papers/Moments_May-4-05.pdf

K. Ho, "Insurer-Provider Networks in the Medical Care Market", mimeo, Columbia University

J. Ishii, "Interconnection Pricing, Compatibility and Investment in Network Industries: ATM Networks in the Banking Industry", mimeo, Stanford University

P. Schmidt-Dengler, "The Timing of New Technology Adoption: The Case of MRI", http://www.econ.yale.edu/~ps258/web_files/timing_12_14.pdf

PS Set: radio social inefficiency estimation, Seim

b. Dynamic Games

T. Bresnahan and P. Reiss, "Measuring the Importance of Sunk Costs", *Annales d'Economie et de Statistique*, 1994, 34, 181-217

R. Ericson and A. Pakes (1995) "Markov-Perfect Industry Dynamics: A Framework for Empirical Work", *Review of Economic Studies*, vol. 62, no. 1, 53-82, <http://links.jstor.org/sici?sici=0034-6527%28199501%2962%3A1%3C53%3AMIDAFF%3E2.0.CO%3B2-9>

A. Pakes and P. McGuire, (1994); "Computing Markov-Perfect Nash Equilibria: Numerical Implications of a Dynamic Differentiated Product Model", *RAND*, vol. 25, no. 4, pp. 555-589, <http://links.jstor.org/sici?sici=0741-6261%28199424%2925%3A4%3C555%3ACMNENI%3E2.0.CO%3B2-9>

A. Pakes, "A Framework for Applied Dynamic Analysis in IO", NBER WP 8024, 2000, <http://www.nber.org/papers/w8024>

V. Aguirregabiria and P. Mira, "Sequential Simulated-Based Estimation of Dynamic Discrete Games," mimeo, Boston University, 2003, http://www.bu.edu/econ/Working%20Papers/papers/Victor%20Aguirregabiria/dyngames_0303.pdf

L. Benkard, "A Dynamic Analysis of the Market for Wide-bodied Commercial Aircraft," *Review*

of Economic Studies, 2004, 71(3), 581-611

<http://juno.ingentaselect.com.turing.library.northwestern.edu/vl=2783491/cl=31/nw=1/rpsv/ij/bpl/00346527/v71n3/s1/p581>

P. Bajari, L. Benkard, J. Levin, "Estimating Dynamic Models of Imperfect Competition", 2004, mimeo, Stanford University, <http://www.nber.org/papers/w10450>

G. J. Hitsch "Estimating a Bayesian Learning Model of Product Launch and Product Exit," mimeo, University of Chicago, 2001.

A. Pakes, M. Ostrovsky, and S. Berry, "Simple Estimators for the Parameters of Discrete Dynamic Games (with Entry / Exit Examples)," mimeo, Harvard University, 2003, <http://www.nber.org/papers/w10506>

A. Pakes and P. McGuire, "Empirical Implications of Alternative Models of Firm Dynamics," *Journal of Economic Theory*, 1998, 53-82

S. Ryan, "The Costs of Environmental Regulation in a Concentrated Industry", mimeo, 2005, http://econ-www.mit.edu/faculty/download_pdf.php?id=1230

T. Holmes, "The Diffusion of Wal-Mart and the Economies of Density", mimeo, 2005, <http://www.nber.org/~confer/2005/si2005/io/holmes.pdf>

A. Collard-Wexler, "Plant Turnover and Demand Fluctuations in the Ready-Mix Concrete Industry", mimeo, Northwestern University, <http://pubweb.northwestern.edu/~agc148/Demand%20Fluctuations%20and%20Plant%20Turnover%20in%20Concrete.pdf>

For background we will also discuss some of the literature on single agent dynamics which is labor orientated:

D. Akerberg, "Advertising, Learning, and Consumer Choice in Experience Good Markets: An Empirical Examination," *International Economic Review*, 2003, 44 (3), 1007-1040

V. Aguirregabiria, "[The Dynamics of Markups and Inventories in Retailing Firms](#)" *The Review of Economic Studies*, 1999, 66, 275-308.

V. Aguirregabiria and P. Mira, "Swapping the Nested Fixed Point Algorithm: A Class of Estimators for Discrete Markov Decision Models" *Econometrica*, 2002, 70 (4), 1519-1543.

Z. Eckstein and K. Wolpin, "The Specification and Estimation of Dynamic Stochastic Discrete Choice Models" *Journal of Human Resources*, 1989, 24, 562-98.

*** I. Hendel, and A. Nevo, "[Measuring the Implications of Sales and Consumer Stockpiling](#)" 2005, NBER WP 11307, now forthcoming *Econometrica*

J. Hotz, and B. Miller, "Conditional Choice Probabilities and the Estimation of Dynamic Models," *Review of Economic Studies*, 1993, 60, 497-529.

J. Hotz, B. Miller, Sanders and Smith, "A Simulation Estimator for Dynamic Models of Discrete Choice," *Review of Economic Studies*, 1994, 61, 265-289.

J. Rust, "[Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher](#)" *Econometrica*, 1987, 55(5), 999-1033.

J. Rust, "Structural Estimation of Markov Decision Processes," *Handbook of Econometrics*, 1996, Volume 4, Chapter 51.

C. Timmins, "Measuring the Dynamic Efficiency Costs of Regulators' Preferences: Municipal Water Utilities in the Arid West." *Econometrica*, 2002, 70(2), 603-629.

5. Strategic Interaction – Full Information

(considerable overlap with the tying and foreclosure sections)

a. Theory

Tirole, pp. 207-8, Chapter 8 and supplementary section

D. Fudenberg and J. Tirole, "The Fat Cat Effect, the Puppy Dog Ploy and the Lean and Hungry Look", *AER*, 1984, 361-6, <http://links.jstor.org/sici?sici=0002-8282%28198405%2974%3A2%3C361%3ATFETPP%3E2.0.CO%3B2-S>

J. Bulow, J. Geanakoplos and P. Klemperer, "Multimarket Oligopoly: Strategic Substitutes and Complements", *JPE*, 1985, 488-511, <http://links.jstor.org/sici?sici=0022-3808%28198506%2993%3A3%3C488%3AMOSSAC%3E2.0.CO%3B2-D>

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

K. Judd, "Credible Spatial Preemption," *Rand Journal of Economics*, 1985, 16, 153-166, <http://links.jstor.org/sici?sici=0741-6261%28198522%2916%3A2%3C153%3ACSP%3E2.0.CO%3B2-D>

A. Dixit, "The Role of Investment in Entry Deterrence", *EJ*, 1980, 721-9, <http://links.jstor.org/sici?sici=0013-0133%28198003%2990%3A357%3C95%3ATROIIE%3E2.0.CO%3B2-D>

D. Fudenberg and J. Tirole, "Learning-by-Doing and Market Performance", *Bell Journal of Economics*, 14(2), 1983, 522-530, <http://links.jstor.org/sici?sici=0361-915X%28198323%2914%3A2%3C522%3ALAMP%3E2.0.CO%3B2-5>

D. Fudenberg and J. Tirole, "Capital as a Commitment: Strategic Investment to Deter Mobility", *JET*, 227-256

J. Gelman and S. Salop, "Judo Economics: Capacity Limitation and Coupon Competition", *BJE*, 1983, 315-25, <http://links.jstor.org/sici?sici=0361-915X%28198323%2914%3A2%3C315%3AJECLAC%3E2.0.CO%3B2-A>

C. Matutes & P. Regibeau, "Mix and match: product compatibility without network externalities," *Rand Journal of Economics*, 1988, 19, <http://links.jstor.org/sici?sici=0741-6261%28198822%2919%3A2%3C221%3A%22AMPCW%3E2.0.CO%3B2-7>

P. Bolton and D. Scharfstein, "A theory of predation based on agency problems in financial contracting", *American Economic Review*, 1990, 80(1), 94-106, <http://links.jstor.org/sici?sici=0002-8282%28199003%2980%3A1%3C93%3AATOPBO%3E2.0.CO%3B2-5>

P. Aghion and P. Bolton, "Contracts as a Barrier to Entry", *American Economic Review*, 1987, 77(3), 388-401

<http://links.jstor.org/sici?sici=0002-8282%28198706%2977%3A3%3C388%3ACAABTE%3E2.0.CO%3B2-7>

D. Besanko, U. Doraszelski, Y. Kryukov and M. Satterthwaite, "Learning-By-Doing, Organizational Forgetting, and Industry Dynamics", 2004, Northwestern Working Paper

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b. Evidence

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