Syllabus: Industrial Organization, Spring 2013

Instructors: Özlem Bedre-Defolie & Paul Heidhues

Description: This course familiarizes students with classic questions and models in industrial organization. We first cover basic models of static as well as dynamic competition with applications to competitive strategy, mergers, collusion, managerial incentives, and trade policy. The course then analyzes in depth competitive strategies of vertical relations and control (*B to B* contracting) and introduces the extensive literature on two-sided markets. We also briefly discuss research on pricing when consumers violate classic assumptions on consumer behavior, e.g. erroneously analyze prices or contract offers.

Course Prerequisites: Students must have completed the first-year microeconomics sequence in the BDPEMS

Time and Location: Wednesdays and Fridays from 9am to 1pm at
ESMT Schlossplatz 1, Room 00.21 (May 8: Room 'Bookshop')

Date	Lecturer	Topic
April 17	Paul	Single Market Oligopoly: Classics
April 19	Paul	
April 24	Paul	
April 26	Paul	Models of Collusion
May 3	Özlem	Vertical Contracting
May 8	Özlem	
May 10	Özlem	
May 15	Paul	Behavioral IO / Contracting
May 17	Paul	
May 22	Özlem	Networks
May 24	Özlem	
May 29	Özlem	Tying and Bundling

Grading: Students are required to hand in a term paper on one of the topics listed below. The term paper is either a literature review on the topic, focusing especially on the new contributions but putting them into a broader perspective, or an original research idea, including a formal example illustrating the potential for getting the hoped-for result in case of a theoretical contribution or specifying exactly regressions to be run and data availability for the project in case of an empirical project. The top grades are reserved for term papers including original research ideas.

Due Date: The term paper has to be handed in before July 15!

Potential paper topics:

- Vertical Restraints
- Entry Deterrence (other than Foreclosure)
- Foreclosure
- Horizontal Mergers
- Two-sided Markets
- Interconnected Networks / Access
- Consumer Protection and Hidden Fees
- Industry Dynamics
- Collusion
- Pricing with Unknown Demand
- Dynamic Price Discrimination
- Advertising
- Switching Costs and Competition

Literature: Good textbooks on basic models of industrial organization are:

- Tirole (1988), The Theory of Industrial Organization, MIT Press.

- Belleflamme and Peitz (2009), Industrial Organization: Markets and Strategies

The following textbook introduces questions of antitrust and economic models of competition that have been written to answer them:

- Motta (2004), Competition Policy: Theory and Practice.

The following textbook highlights implications of various consumer biases on market outcomes:

- Spiegler, Ran (2011), Bounded Rationality and Industrial Organization

Preliminary Reading List:

Introduction

Required Readings:

- Chamberlin, E. (1953), The Product as an Economic Variable, Quarterly Journal of Economics, 67(1): 1-29.

- Motta (2004), Chapters 1 and 2.

- Vickers, J. (1995), Concepts of Competition, Oxford Economic Papers 47, 1-23.

Further Readings:

- Bain, J. 1956. Industrial Organization. New York: Wiley.

Single Market Oligopolies

Required Readings:

- Tirole (1988), Chapter 5 and parts of Chapter 8

- Kreps and Scheinkman (1983), Quantity Precommitment and Bertrand Competition yield Cournot Outcomes, Bell Journals of Economics 14(2), 326-337.

Further Readings:

Classics: Cournot, Bertrand, Edgeworth, Hotelling, Salop, van Stackelberg – see citations in Tirole.

- Dudey, M. (1990), Competition by Choice: The Effect of Consumer Search on Firm Location Decisions, American Economic Review 80(5), 1092-1104.

- Dixit, A. (1980), The Role of Investments in Entry Deterrence, Economic Journal 90, 95-106.

- Nocke, V. and Whinston M., Dynamic Merger Review, Journal of Political Economy, 2010, vol. 118(6), 1200-1251.

- Holt, C. and D. Scheffman (1987), Facilitating Practices: The Effects of Advanced Notice on Best-Price Policies, RAND Journal of Economics, 18(2), 187-197.

- Salant, Swityzer, Reynolds (1983), Losses from Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium, 98(2), 185-199.

- Whinston, M. (2007), Antitrust Policy toward Horizontal Mergers, in Handbook of Industrial Organization, Chapter 36, 2396-2440.

Models of Collusion

Required Readings:

- Tirole, Chapter 6

- Stigler, GJ (1964), A Theory of Oligopoly, Journal of Political Economy, 44-61.

Further Readings (still incomplete)

- Athey, S. and K. Bagwell (2001), Optimal Collusion with Private Information, RAND Journal of Economics, 32(3), 428-465.

- Blume A. and P. Heidhues (2008), Modelling Tacit Collusion in Auctions, Journal of Institutional and Theoretical Economics, 164(1), 163-184.

- Hoerner, J. and W. Olszewski (2006), The Folk Theorem with Private Almost-Perfect Monitoring, Econometrica, 74, 1499-1544.

- Kandori, M., (2002) Introduction to Repeated Games with Private Monitoring, Journal of Economic Theory, 102, 1-15.

Vertical Contracting

A. Vertical Restraints and Coordination

A.1. Vertical restraints and intra-brand coordination

- Mathewson and Winter (1984), "An Economic Theory of Vertical Restraints", *RAND Journal of Economics*, Vol. 15, pp. 27-38.

- Rey and Tirole (1986), "The Logic of Vertical Restraints", *American Economic Review*, Vol. 76, pp. 921-939.

- Rey and Verge (2007), "Economics of Vertical Restraints", *Handbook of Antitrust Economics*, pp. 353-390.

A.2. Vertical restraints and inter-brand coordination

- Rey and Stiglitz (1994), “The Role of Exclusive Territories in Producers’ Competition”, *RAND Journal of Economics*, Vol. 26, pp. 431-451.

- Jullien and Rey (2007), “Retail Price Maintenance and Collusion”, *RAND Journal of Economics*, Vol. 38, pp. 983-1001.

B. Vertical Restraints and Entry Barriers

- Aghion and Bolton (1987), “Contracts as Barriers to Entry”, *American Economic Review*, Vol. 77, pp. 388-401.

- Rasmussen, Ramseyer and Wiley (1991), “Naked Exclusion”, *American Economic Review*, Vol. 81, pp. 1137-1145.

- Segal and Whinston (2000), “Naked Exclusion: Comment”, *American Economic Review,* Vol. 90, pp. 296-309.

C. Vertical Integration and Foreclosure

- Hart and Tirole (1990), “Vertical Integration and Market Foreclosure”, *Brooking Papers on Economic Activity* (*Microeconomics)*, pp. 205-285.

- O’Brien and Shaffer (1992), “Vertical Control with Bilateral Contracts”, *RAND Journal of Economics*, Vol. 23, pp. 431-451.

- McAfee and Schwartz (1994), “Opportunism in Multilateral Vertical Contracting: Nondiscrimation, exclusivity and uniformity”, *American Economic Review*, Vol. 84, pp. 210-230.

- Segal (1999), “Contracting with Externalities”, The Quarterly Journal of Economics, Vol. 114, pp. 337-388.

- Bernheim and Whinston (1985), “Common Marketing Agency as a device for Facilitating Collusion”, *RAND Journal of Economics*, Vol. 16, pp. 269-281.

- Rey and Tirole (2007), “A Primer on Foreclosure”, *Handbook of Industrial Organization*, Vol. 3. pp. 2145-2220.

Behavioral IO/ Contracting

Basic Reading:

- Spiegler (2011)

- Further Reading (Still Incomplete):
- Armstrong, M. and J. Vickers (2012), Consumer Protection and Contingent Charges, 50(2), 477-493.

- DellaVigna, S. and U. Malmendier (2004), Contract Design and Self Control: Theory and Evidence, Quarterly Journal of Economics

- Eliaz, K. and R. Spiegler (2006), Contracting with Diversely Naïve Agents, Review of Economic Studies, 73(3), 689-714.

- Gabaix, X. and D. Laibson (2006), Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets, Quarterly Journal of Economics, 121(2), 505-540.

- Grubb, M. (2009), Selling to Overconfident Consumers, American Economic Review, 99(5), 1770-1805.

- Heidhues, P. and B. Koszegi (2008), Competition and Price Variation when Consumers are Loss Averse, American Economic Review, 98(4), 1245-1268.

- Heidhues, P. and B. Koszegi (2010), Exploiting Naivete about Self-Control in the Credit Market, American Economic Review. 100(5), 2279-2303.

- Heidhues, P. B. Koszegi, and T. Murooka (2012), Inferior Products and Profitable Deception, Working Paper.

- Heidhues, P. B. Koszegi, and T. Murooka (2012), Exploitative Innovation, Working Paper.

- Herweg, F. and K. Mierendorff, Uncertain Demand, Consumer Loss Aversion, and Flat-Rate Tariffs, Journal of the European Economic Association, forthcoming.

- Inderst, R. and M. Ottaviani (2012), Financial Advice, Journal of Economic Literature, 55(1), 494-512.

- Sandroni, A. and F. Squintani (2007), Overconfidence, Insurance, and Paternalism, American Economic Review, 97(5), 1994-2004.

Network Effects and Platform Competition

A. Two-sided Markets

- Rochet and Tirole (2002), "Cooperation Among Competitors: Some Economics of Payment Associations," *RAND Journal of Economics,* Vol. 33(4), 549-570.
- Caillaud and Jullien (2003), "Chicken and Egg: Competition Among Intermediation Service Providers," *RAND Journal of Economics,* Vol. 34(2), 309-328.
- Armstrong (2006), "Competition in Two-sided Markets," *RAND Journal of Economics,* Vol. 37(3), 668-691.
- Rochet and Tirole (2006), "Two-sided Markets: A Progress Report," *RAND Journal of Economics,* Vol. 37(3), 645-667.
- Weyl (2011), "A Price Theory of Multi-sided Platforms, "*American Economic Review*, Vol. 100(4), 1642-1672.
- Hagiu and Julien (2011), "Why do Intermediaries Divert Search," *Rand Journal of Economics*, Vol. 47(2), 332-367.

B. Interconnected Networks

- Katz and Shapiro (1985), "Network Externalities, Competition and Compatibility," *American Economic Review*, Vol. 75(3), pp. 424-440.
- Farrell and Saloner (1985), "Standardization, Compatibility and Innovation," *The RAND Journal of Economics*, Vol.16, pp. 70-83.
- Katz and Shapiro (1994), "System Competition and Network Effects," *Journal of Economic Perspectives*, Vol. 8(2), pp. 93-115.
- Laffont, Rey and Tirole (1998a), "I.Overview and Nondiscriminatory Pricing," *The RAND Journal of Economics,* Vol. 29(1), pp. 1-37.
- Laffont, Rey and Tirole (1998b), "II. Price Discrimination," *The RAND Journal of Economics,* Vol. 29(1), pp. 38-56.
- Laffont, Markus, Rey and Tirole (2003), "Internet Interconnection and the Off-Net-Cost Pricing Principle," *The RAND Journal of Economics,* Vol. 34(2), 370-390.
- Jeon, Laffont and Tirole (2004), "On the Receiver Pays Principle," *The RAND Journal of Economics,* Vol. 31(1), 85-110.

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Tying and Bundling

- Matutes and Regibeau (1988), “Mix and Match : Product Compatibility Without Network Externalities,” *The RAND Journal of Economics,* Vol. 19(2), 219-234.

- Whinston (1990), “Tying, Foreclosure and Exclusion,”*American Econom-ic Review,* Vol. 80, 837-860.

- Nalebuff (2000), “Competing Against Bundles,” *Incentives, Organization, and Public Economics*, 323-336.

- Choi and Stefanadis (2001), “Tying, Investment and Dynamic Leverage Theory,” *The RAND Journal of Economics,* Vol. 32, 52-71.

- Carlton and Waldman (2002), “Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries,” *The RAND Journal of Eco-nomics,* Vol. 33(2), 194-220.

- Nalebuff (2004), “Bundling as an Entry Barrier,” *The Quarterly Journal of Economics*, 119(1), 159-187.

- Armstrong and Vickers (2010), “Competitive Non-linear Pricing and Bun-dling,” *Review of Economic Studies*, 77(1), 30-60.