Economics 258 Winter 2023
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Industrial Organization II: Syllabus

Class Description

This course is the second of three courses in the Ph.D. sequence in Industrial Organization in the economics department (257, 258, and 260). The goal of the sequence, and especially the first two quarters, is to provide broad general training in the field, introducing you to the central questions around imperfect competition, market structure, innovation and regulation, as well as the models and empirical methods commonly used to tackle these questions. The third quarter provides an opportunity for students to write a supervised research paper, and gain experience presenting their work.

Students in the Economics PhD program who intend to take IO as a field must take 257 and 258, and students who further intend to write theses in IO are strongly recommended to continue through 260. All three classes are also open to students in other fields and Stanford departments, and traditionally many students in 257 fall into this category. All students taking 257, however, should have taken the first-year graduate sequence in Economics, or have equivalent preparation in microeconomics and econometrics.

Course Requirements

The specific requirements are:

a) *2 Problem Sets.* These will entail substantial empirical and computational exercises.

b) *2 Written Assignments.* This will focus on critically reading and evaluating the literature.

c) *Class Preparation*. Before most classes, we will assign one or two papers, and **students will be expected to familiarize themselves with this material**.

Class grades will be based on problem sets (40%), written assignments (40%), and class participation (20%). All three are essential parts of the course and we expect students to take them seriously.

Tentative Class Schedule

Part 1 (Ali)

1. Mon, Jan 9: Antitrust and Regulation: Overview and Basic Theory
2. Wed, Jan 11: Antitrust and Regulation: Empirical Horizontal Mergers and Collusion
3. Wed, Jan 18: Vertical Relations and Bargaining
4. Mon, Jan 23: Vertical Relations and Bargaining

Part 2 (Liran)

5. Wed, Jan 25: Intro to selection markets
6. Mon, Jan 30: Testing for asymmetric information
   Problem Set 1 due
7. Wed, Feb 1: Empirical models of insurance demand
8. Mon, Feb 6: Empirical models of insurance demand
9. Wed, Feb 8: Estimating welfare in insurance markets
10. Mon, Feb 13: Credit markets
11. Wed, Feb 15: Credit markets
    Written Assignment 1 due
12. Wed, Feb 22: Reclassification risk, adverse selection, and risk adjustment

Part 3 (Ali)

13. Mon, Feb 27: Markups and Concentration
14. Wed, Mar 1: Markups and Concentration (Matt Gentzkow guest lecture)
    Written Assignment 2 due
15. Mon, Mar 6: Single Agent Dynamics
16. Wed, Mar 8: Dynamics (Industry Dynamics)
17. Mon, Mar 13: Dynamics (Applications to Regulation)
18. Wed, Mar 15: Dynamics (Applications to Innovation)
    Problem Set 2 due

Reading for Part 1

Jan 9 Antitrust and Regulation: Overview and Basic Theory (AY)

Read: Concentration Screens for Horizontal Mergers by Nocke and Whinston

DoJ/FTC Horizontal Merger Guidelines

Does Merger Simulation Work? By Bjornstedt and Verboven

Jan 11 Antitrust and Regulation: Empirical Horizontal Mergers and Collusion (AY)

Read: Killer Acquisitions by Cunningham, Ederer, and Ma

Algorithmic Pricing and Competition: Empirical Evidence from the German Retail Gasoline Market by Assad, Clark, Ershov, and Xu

Jan 18 Vertical Relations and Bargaining (AY)

Read: Handbook of IO chapter by Lee, Whinston, and Yurukoglu

Will also cover: Lectures on Antitrust Economics, Chapter 3, by Whinston

Jan 23 Vertical Relations and Bargaining (AY)

Read: The Welfare Effects of Vertical Integration in Multichannel Television by Crawford, Lee, Whinston, Yurukoglu

Will also cover: The Welfare Effects of Bundling in Multichannel Television by Crawford and Yurukoglu

Equilibrium Provider Networks: Bargaining and Exclusion in Health Care Markets by Ho and Lee

Reading for Part 2 (* = paper that will be discussed in class)

Overview reading:

- Einav, Finkelstein, and Mahoney, "The IO of Selection Markets," Handbook of Industrial Organization, Vol 5(1), 2021, Chapter 14, 389-426.

2. Theoretical background

- Akerlof, "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism," QJE, 1970.
- Arrow, "Uncertainty and the Welfare Economics of Medical Care," AER, 1963.
- Arrow, Essays in the Theory of Risk Bearing (Chicago: Markham, 1971).
- (*)Einav and Finkelstein, "Selection in Insurance Markets: Theory and Empirics in Pictures," JEP, 2011.
- Pauly, "The Economics of Moral Hazrad: Comment," AER, 1968.
- Rothschild and Stiglitz, "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information," QJE, 1976.

3. Testing for Asymmetric Information in Insurance Markets

- (*)Chiappori and Salanie, "Testing for Asymmetric Information in Insurance Markets," JPE, 2000.
- Chiappori and Salanie, "Testing Contract Theory: A Survey of Some Recent Work," in M. Dewatripont and L. Hansen, ed., Advances in Economics.
- Fang, Keane, and Silverman, "Sources of Advantageous Selection: Evidence from the Medigap Insurance Market," JPE, 2008.
- (*)Finkelstein and McGarry, "Multiple dimensions of private information: evidence from the long-term care insurance market," AER, 2006.
- Finkelstein and Poterba, "Adverse Selection in Insurance Markets: Policyholder Evidence from the U.K. Annuity Market," JPE, 2004.
- Genesove, "Adverse Selection in the Wholesale Used Car Market," JPE, 1993.
- Pueltz and Snow, "Evidence on Adverse Selection: Equilibrium Signaling and Cross-Subsidization in the Insurance Market," JPE, 1994.

4. Estimating Demand for Insurance

- (*)Cardon and Hendel, "Asymmetric Information in Health Insurance: Evidence from the National Medical Expenditure Survey," RAND, 2001.
- (*)Cohen and Einav, "Estimating Risk Preferences from Deductible Choice," AER, 2007.
- Einav, Finkelstein, and Schrimpf, "Optimal Mandates and The Welfare Cost of Asymmetric Information: Evidence from the U.K. Annuity Market," Econometrica, 2010.

5. Welfare in Insurance Markets

- (*)Bundorf, Levin, and Mahoney, “Pricing, Matching and Efficiency in Health Plan Choice,” AER, 2012.
- (*)Einav, Finkelstein, and Cullen, “Estimating welfare in insurance markets using variation in prices,” QJE, 2010.
- Einav, Finkelstein, and Levin, “Beyond Testing: Empirical Models of Insurance Markets,” Annual Reviews of Economics, 2010.
- Einav, Finkelstein, Ryan, Schrimpf, and Cullen, “Selection on Moral Hazard in Health Insurance,” AER, 2013.
- Handel, “Adverse Selection and Switching Costs in Health Insurance Markets: When Nudging Hurts,” AER, 2013.

6. Credit Markets

- Ausubel, “The Failure of Competition in the Credit Card Market,” AER 1991.
- Ausubel, “Adverse Selection in the Credit Card Market,” University of Maryland Working Paper, June 1999.
- (*)Adams, Einav, and Levin, “Liquidity Constraints and Imperfect Information in Subprime Lending,” AER, 2009.
- (*)Einav, Jenkins, and Levin, "Contract Pricing in Consumer Credit Markets," Econometrica, 2012.
- Einav, Jenkins, and Levin, “The Impact of Information Technology on Consumer Lending,” RAND, 2013.
- Jaffee and Russell, "Imperfect Information, Uncertainty and Credit Rationing," QJE, 1976.
- (*)Karlan and Zinman, “Observing Unobservables: Identifying Information Asymmetries with a Consumer Credit Field Experiment,” Econometrica, 2009.
- Stiglitz and Weiss, "Credit Rationing in Markets with Imperfect Information," AER, 1981.

Reading for Part 3

Feb 27 Markups and Concentration (AY)

Read:	The Rise of Market Power by de Loecker, Eeckhout and Unger
Will also cover:	The Evolution of Market Power in the US Automobile Industry by Grieco, Murry, and Yurukoglu

Mar 1 Markups and Concentration (MG)

Read:	Macroeconomics and Market Power: Context, Implications, and Open Questions by Syverson
	The Fall of the Labor Share and the Rise of Superstar Firms by Autor et al.

Mar 6 Single Agent Dynamics (AY)

Read:	Optimal Replacement of GMC Bus Engines: An Empirical Model of Harold Zurcher by Rust
	Measuring the Dynamic Efficiency Costs of Regulators' Preferences: Municipal Water Utilities in the Arid West by Timmins
Will also cover:	Patents as Options by Pakes

Mar 8 Dynamics (Industry Dynamics) (AY)

Read:	Markov-perfect Industry Dynamics: A Framework for Empirical Work by Ericson and Pakes
	Estimating Dynamic Models of Imperfect Competition by Bajari, Benkard, and Levin
Will also cover:	Selection and the Evolution of Industry by Jovanovic
	Entry, Exit, and Firm Dynamics in Long Run Equilibrium by Hopenhayn
	A Dynamic Analysis of the Market for Wide-bodied Commercial Aircraft by Benkard

Dynamics of Consumer Demand for New Durable Goods by Gowrisankaran and Rysman

Measuring the Implications of Sales and Consumer Inventory Behavior by Hendel and Nevo

Mar 13 Dynamics (Applications to Regulation) (AY)

Read: Market-Based Emissions Regulation and Industry Dynamics by Fowlie, Reguant, and Ryan

Dynamic Natural Monopoly Regulation: Time Inconsistency, Moral Hazard, and Political Environments by Lim and Yurukoglu

Mar 15 Dynamics (Applications to Innovation) (AY)

Read: Does AMD Spur Intel to Innovate More? By Goettler and Gordon

Estimating the Innovator's Dilemma: Structural Analysis of Creative Destruction in the Hard Disk Drive Industry, 1981–1998 by Igami

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