213B: Firm Dynamics
Spring 2018
Syllabus

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Overview

Many important problems facing firms are inherently dynamic. When to enter or exit an industry. How much to invest. Whether to lower prices and trigger a price war. This course will introduce students to the big questions in the literature, and the families of model. Students will also see applications of techniques such as markov perfect equilibrium, repeated games, and dynamic contracting.

Evaluation

- 2 problems sets (20% each)
- Presentation (10%)
- Paper/Final (50%)

Topics and Reading

1. Exogenous growth and selection [4 lectures; Hugo]
   - Facts about Size Distribution and Firm Dynamics
   - Span of Control
     - Lucas (1978, RAND)
   - Stationary Equilibrium with Entry and Exit
     - Hopenhayn (Ecta, 1992)
     - Luttmer (QJE, 2007; RES, 2011)
     - Asplund Nocke (2006, RES)
   - Selection and Firm Dynamics
     - Jovanovic (1982)
   - Industry Life Cycle
     - Jovanavic MacDonald (JPE, 1994)
     - Hopenhayn (unpublished)
• Aggregate Shocks and Firm Dynamics

2. Dynamic Oligopoly [3 lectures; Hugo]
• Markov Perfect Equilibrium: Definitions, existence, examples
• Linear Quadratic Games
• Entry and Exit Games
  o Abbring and Campbell (Ecta, 2010)
• Firm Dynamics, Entry and Exit
  o Ericson and Pakes (RES, 1995)
  o Doraszelski Satterthwaite (RAND, 2007)
• Firm Dynamics and Asymmetries
  o Budd, Harris, Vickers (RES, 1993)
  o Besanko and Doraszelski (Rand 2004)

3. Strategic Aspects in Firm Dynamics and Size Distribution [3 lectures; Hugo]
• Endogenous Sunk Costs: Sutton (1991)
• Learning by Doing: Cabral Riordan (1994, Ecta), Besanko, Doraszelski (RAND, 2003), Besanko, Doraszelski, Kryukov and Satterthwaite (Ecta, 2010)
• Switching costs: Beggs, Klemperer (1992, Ecta)
• Pricing Dynamics: Maskin Tirole (1988a,b, Ecta)

4. Learning, Reputation [2 lectures; Simon]
• Reputation with one firm: Bar Isaac (RES, 2003), Board and MtV (Ecta, 2013)
• Reputation and competition: Horner (AER, 2002), Fishman, Rob (JPE, 2005)

5. Labor and Human capital [2 lectures; Simon]
• Selection: Montgomery (AER, 1991), Board, MtV, Sadzik (WP, 2017)
• Peer effects: Jovanavic (AER, 2014); Anderson and Smith (RES, 2010)

6. Innovation [2 lectures, Simon]
• R&D: Klepper (1996, AER), Klette Kortum (JPE, 2004)
• Dissemination: Lucas, Moll (JPE, 2014); Perla, Tonetti (JPE, 2014)

7. Collusion [2 lectures, Simon]
• Basic models: Green Porter (Ecta, 1984), Abreu, Pearce and Stachetti (JET, 1986)

8. Relational contracts [2 lectures, Simon]
• Basic model: Levin (2003, AER)
• Dynamics: Thomas, Worrall (1994, RES), Board (2010, AER)