

## **ECON 8602-Industrial Organization: Firm Dynamics**

University of Minnesota, Fall, 2002 Session 2

Lecture: TTh 12:45-2:30, HHH CTR 30

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**Description** This course will cover theoretical and empirical models of firm behavior.

**Grading** There will be three problem sets (45 % of the grade), a class presentation of a paper on the reading list (15 %) and a final exam (40 %).

**Readings** The list of readings follow. Those with a \* or \*\* will get more emphasis. Those with \*\* can be chosen for the class presentation. Many of the required readings are available from JSTOR. Some are available from my web site.

**Topics** By week:

### 1. (10/24) Concepts of the Firm

- \*Coase, "The Nature of the Firm," *Economica*, 1937: 386-405.
- \*Penrose, *The Theory of the Growth of Firms*, Blackwell, 1959.
- \*Klette and Kortum, "Innovating Firms and Aggregate Innovation," *NBER Working Paper No. 8819*, 2002.

### 2. (10/29, 10/31) Firm Growth and the Size Distribution

- \*Sutton, "Gibrat's Legacy," *JEL*, 35: 40-59.
- \*Lucas, "On the Size Distribution of Business Firms," *Bell (RAND)*, 1978: 508-523.
- Axtell, "Zipf Distribution of U.S. Firm Sizes," *Science*, 2001 (Sept. 7): 1818-1820.
- Gabaix, "Zipf's Law for Cities: An Explanation," *QJE*, 1999: 739-767.

- \*Hall, “The Relationship Between Firm Size and Firm Growth in the U.S. Manufacturing Sector,” *J. Ind. Econ.*, 1987: 583-606.
  - Stanley, Buldyre, Havlin, Mantegna, Salinger, and Stanley, “Zipf Plots and the Size Distribution of Firms,” *Econ. Letters*
  - Amaral, Buldyrev, Havlin, Salinger, and Stanley, “Power Law Scaling for a System of Interacting Units with Complex Internal Structure,” *Physical Review Letters*, 1998: 1385-1388.
3. **(11/5, 11/7) Adjustment Costs and Competitive Equilibrium**
- \*Lucas, “Adjustment Costs and the Theory of Supply,” *JPE*, 1967: 321-334.
  - \*Prescott and Visscher, “Organizational Capital,” *JPE*, 1980: 446-461.
  - \*Lucas and Prescott, “Investment Under Uncertainty,” *ECTA*, 1971: 659-681.
4. **(11/12, 11/14) Firm Entry and Exit**
- \*Hopenhayn, “Entry, Exit, and Firm Dynamics in Long Run Equilibrium,” *ECTA*, 1992: 1127-1150.
  - \*\*Jovanovic, “Selection and the Evolution of Industry,” *ECTA*, 1982: 649-670.
  - \*Dunne, Roberts, and Samuelson, “Patterns of Firm Entry and Exit in U.S. Manufacturing Industries,” *RAND*, 1988: 495-515.
  - Dunne, Roberts, and Samuelson, “The Growth and Failure of U.S. Manufacturing Plants,” *QJE*, 1989: 671-698.
  - \*Baily, Hulten, and Cambell, “Productivity Dynamics in Manufacturing Plants,” *Brookings: Micro*, 1992: 187-267.
  - Caves, “Industrial Organization and New Findings on the Turnover and Mobility of Firms,” *JEL*, 1998: 1947-1982.
5. **(11/19, 11/21) Pre-Conference**
- (guest lecture on 11/21)
  - \*Klepper and Thompson, “Submarkets and the Evolution of Market Structure,” 2002.

6. **(11/26) Firms and the Labor Market**

- \*Mortensen, “How Are (Danish) Wages Determined,” 2002.
- \*Bontemps, Robin, and van den Berg, “Equilibrium Search with Continuous Productivity Dispersion: Theory and Non-Parametric Estimation,” *IER* 2000: 305-358.

7. **(12/3, 12/5) Industry Dynamics with Research**

- \*Ericson and Pakes, “Markov Perfect Industry Dynamics: A Framework for Empirical Analysis,” *RESTUD*, 1995: 53-82.
- Pakes and McGuire, “Computing Markov-Perfect Nash Equilibria: Numerical Implications of a Dynamic Differentiated Product Model,” *RAND*, 1994: 555-589.

8. **(12/10, 12/12) Innovation**

- \*Grossman and Helpman, chapter 4 of *Innovation and Growth in the Global Economy*, MIT, 1991.
- \*Aghion, Harris, Howitt, and Vickers, “Competition, Imitation and Growth with Step-by-Step Innovation,” *Review of Economic Studies*, 2001.
- \*Aghion, Bloom, Blundell, Griffith, and Howitt, “Competition and Innovation: An Inverted U Relationship,” 2002.
- Cohen and Klepper, “A Reprise of Size and R&D,” *EJ*, 1996: 925-951.
- Klepper, “Entry, Exit, Growth, and Innovation Over the Product Life Cycle,” *AER*, 1996: 562-583.

9. **(12/21) Final Exam (4:00-6:00 PM)**