Course Description

This is a graduate course on empirical industrial organization. The focus of the course will be on firms’ productivity. We will study a selection of (mostly) empirical research on firms’ productivity, its relationship with organizational structure, research and development, market conduct and power, and market environment. Firms have different levels of productivity. Some essential questions are: What are the sources of persistence performance differences among firms within narrowly defined industries or ‘firm-fixed effect’? What are the roles of ‘learning’ and ‘selection’ in firm heterogeneity and what are its aggregate consequences?

Students will acquire the tools for research involving measurement of firms’ productivity and will be able to explore questions regarding both sources of firm productivity differences and aggregate implications of firm heterogeneity. These questions also relate to other fields in economics such as macroeconomics, international trade, and development economics. In this course, we will approach this topic from an industrial organization perspective by treating firms as part of the environment under which they operate with explicit considerations of market power, market frictions, and uncertainty.
Course Outline

♣ Production Function/Productivity Estimation

- Griliches and Mairesse: NBER Working Paper No. 5067 Issued in March 1995
  Production Functions: The Search for Identification
- Olley and Pakes: Econometrica, Vol. 64, No. 6 (Nov., 1996), pp. 1263-1297
  The Dynamics of Productivity in the Telecommunications Equipment Industry
  Estimating Production Functions Using Inputs to Control for Unobservables
- Klette, Tor Jakob: The Journal of Industrial Economics, December 1999
  Market Power, Scale Economies and Productivity: Estimates From a Panel of Establishment Data
  Pages 343 - 361 The Inconsistency of Common Scale Estimators When Output
  Prices are Unobserved and Endogenous
  Estimating Firm-Level Productivity in Differentiated Product Industries
- Ackelberg, Dan, Kevin Caves and Garth Frazer (2006): Structural Identification of Production Functions

♢ Market Demand

- Campbell and Hopenhayn: The Journal of Industrial Economics, March 2005
  Market Size Matters
  Market Structure and Productivity: A Concrete Example
  The Slow Growth of New Plants: Learning about Demand?
• Pozzi and Schivardi: NBER Working Paper 2012 Demand or Productivity: What Determines Firm Growth?

♣ Market Selection, Reallocation and Aggregate Productivity


• Foster, Haltiwanger and Syverson: American Economic Review, March 2008 Reallocation, Firm Turnover and Efficiency: Selection on Productivity or Profitability?


♣ Dynamic Industry Equilibrium Models


• Utar, Hâle: Working paper Import Competition and Employment Dynamics

• Dinlersöz, and Yörükoglu: American Economic Review, 102(2) (April, 2012) pp. 884-913 Information and Industry Dynamics
• Technical Appendix
  – Dynamic Programming
    * Lecture Notes from Fabrice Collard
  – Simulation Based Estimation Techniques
    * Duffie and Singleton: Econometrica 61 1993, pp.929-952. Simulated Moments Estimation of Markov Models of Asset Prices
    * Gourieroux, Monfort, and Renault: Journal of Applied Econometrics 8 1993, S85-S118. Indirect Inference

♣ Innovation, R&D, Technology Adoption

• Klette and Kortum: The Journal of Political Economy, October 2004 Innovating Firms and Aggregate Innovation
• Bloom, Schankerman, and Van Reenen: Econometrica, Vol. 81, No.4, July 2013, pp.1347-1393 Identifying Technology Spillovers and Product Market Rivalry

♣ Competition and Firm Productivity


♣ Firms’ Internal Organization and Productivity

• Bloom, Sadun and Van Reenen: Working Paper, 2013 Management As A Technology


♣ Firm Productivity, Innovation and International Markets

• Atkeson and Burstein: Working paper, 2008 Innovation, Firm Dynamics and International Trade

• Constantini and Melitz: Working paper, 2007 The Dynamics of Firm-Level Adjustment to Trade Policy

• Aw, Roberts, and Winston: NBER Working Paper 11774, 2005 The Complementary Role of Exports and R&D Investments as Sources of Productivity Growth
Bellone, Guillou, and Nesta: Working paper, 2009 *Are Export Premia Robust to Innovation Statistics*

**Vertical Integration and Firms’ Boundaries**

- Hortaçsu and Syverson: Working paper 2008 *Vertical Integration and Production: Some Plant-level Evidence*
- Lafontaine and Slade: Journal of Economic Literature, September 2007 *Vertical Integration and Firm Boundaries: The Evidence*
- Acemoglu, Aghion, Griffith and Zilibotti: Journal of the European Economic Association September 2010 *Vertical Integration and Technology: Theory and Evidence*

**Time and Location**
Thursday 10:00-12:00am, T2-226

**Office Hours**
Monday 3:00-5:00 pm
EXAM
You are expected to participate in the class and attendance is strongly recommended. There will be one written exam which will take place during the class time on July 17.

REFEREE REPORT ASSIGNMENTS
Participation is optional. I will assign two papers to each participated student for preparation of referee reports. The first referee report will be due on June 5. The second referee report will be due on July 3.

PRESENTATIONS
Participation is optional. Starting from July 3, tentatively, we will have class presentations. Each participated student will present the paper that is assigned for the second referee report.

Content: Research paper that is assigned to you to present.

The length of the presentation: Prepare for approximately 10 minutes talk ~ about 5-6 slides

GRADING POLICY
The final grade will be given as follows:

$$FinalGrade = Max\{100\% \ Exam, 55\% \ Exam + 15\% \ RR1 + 15\% \ RR2 + 15\% \ Presentation\}$$