Productivity: Firms, Markets, and Economies

Course Outline/Reading List Instructor: Chad Syverson June 2018 Held at NHH, Bergen, Norway

Course Schedule

Class held daily from Monday, June 25 through Thursday, June 28 From 10:00-12:00 and 13:00-16:00

Monday, June 25: Section 1 (see section descriptions and reading lists below)

Tuesday, June 26: Sections 2-3 Wednesday, June 27: Sections 3-4

Thursday, June 28: Section 4 and student paper presentations

Course Description and Reading List (an asterisk denotes suggested pre-reading)

The first section of the course will lay the necessary conceptual groundwork by introducing students to productivity as a concept, how it is measured, and the basic patterns of firm-level productivity both in the cross section and over time.

Section 1: Productivity Primer and Heterogeneous-Productivity-Producer Industries

- Bartelsman, Eric and Mark Doms. "Understanding Productivity: Lessons from Longitudinal Microdata." *Journal of Economic Literature*, *38*(3), 2000: 569-94.
- Ericson, Richard and Ariel Pakes. "Markov Perfect Industry Dynamics: A Framework for Empirical Work." *Review of Economic Studies*, 62(1), 1995: 53-82.
- Foster, Lucia, John Haltiwanger, and Chad Syverson. "Reallocation, Firm Turnover, and Efficiency: Selection on Productivity or Profitability?" *American Economic Review*, 98(1), 2008: 394-425.
- Jovanovic, Boyan. "Selection and Evolution of Industry." *Econometrica*, 50(3), 1982: 25-43.
- Syverson, Chad. "Market Structure and Productivity: A Concrete Example." *Journal of Political Economy*, December 2004: 1181-1222.
- *Syverson, Chad. "What Determines Productivity?" *Journal of Economic Literature*, 49(2), 2011: 326-365.

The second section looks at explanations for productivity differences across producers and how this is related to differences in firm performance as well as earnings inequality and labor's share of income.

Section 2: Explanations for Productivity Differences and Relationship to Inequality

- Autor, David, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenen. "Concentrating on the Fall of the Labor Share." NBER Working Paper No. 23108, 2017.
- Bloom, Nick, Benn Eifert, Aprajit Mahajan, David McKenzie, and John Roberts. "Does Management Matter? Evidence from India." *Quarterly Journal of Economics*, 128(1), 2013: 1-51.
- *Bloom, Nick, Erik Brynjolfsson, Lucia Foster, Ron Jarmin, Megha Patnaik, Itay Saporta-Eksten, and John Van Reenen. 2017. "What Drives Differences in Management?" NBER Working Paper 23300.
- Foster, Lucia, John Haltiwanger, and Chad Syverson, "The Slow Growth of New Plants: Learning about Demand?" *Economica*, 83(329), 2016: 91–129.
- Levitt, Steven D., John A. List, and Chad Syverson. "Toward an Understanding of Learning by Doing: Evidence from an Automobile Assembly Plant" *Journal of Political Economy*, 121(4), 2013: 643-681.
- Song, Jae. David J. Price, Fatih Guvenen, Nicholas Bloom, and Till von Wachter. "Firming Up Inequality." NBER Working Paper No. 21199, 2015.

The course's third section examines the burgeoning literature that investigates the efficiency (or lack thereof) of the allocation of resources across heterogeneous-productivity producers. This involves work that is both positive, describing the allocation as-is, and normative, asking what is efficient and whether market mechanisms support this or instead are impeded by frictions from achieving more efficient outcomes.

Section 3: Allocation, Reallocation, and Misallocation

- Asker, John, Allan Collard-Wexler, and Jan De Loecker. 2017. "Market Power, Production (Mis)Allocation and OPEC." NBER WP 23801.
- Bils, Mark, Peter J. Klenow, and Cian Ruane. "Misallocation or Mismeasurement?" Mimeo, 2017.
- Braguinsky, Serguey, Atsushi Ohyama, Tetsuji Okazaki, and Chad Syverson. "Acquisitions, Productivity, and Profitability: Evidence from the Japanese Cotton Spinning Industry." *American Economic Review*, 105(7), 2015: 2086-2119.

- Chandra, Amitabh, Amy Finkelstein, Adam Sacarny, and Chad Syverson. "Healthcare Exceptionalism? Performance and Allocation in the U.S. Healthcare Sector." *American Economic Review*, 106(8), 2016: 2110-44.
- Collard-Wexler, Allan and Jan De Loecker. "Reallocation and Technology: Evidence from the U.S. Steel Industry." *American Economic Review*, 105(1), 2015: 131-71.
- Dhingra, Swati and John Morrow. Forthcoming. "Monopolistic Competition and Optimum Product Diversity under Firm Heterogeneity." *Journal of Political Economy*.
- Foster, Lucia S., Cheryl A. Grim, John Haltiwanger, and Zoltan Wolf. "Macro and Micro Dynamics of Productivity: From Devilish Details to Insights." NBER Working Paper No. 23666, 2017.
- Haltiwanger, John, Robert Kulick, and Chad Syverson. 2018. "Misallocation Measures: The Distortion That Ate the Residual." NBER WP 24199.
- *Hsieh, Chang-Tai and Peter J. Klenow. "Misallocation and Manufacturing TFP in China and India." *Quarterly Journal of Economics*, 124(4), 2009: 1403-48.

The fourth section zooms out to explore more aggregate patterns of productivity and how they are related to the microeconomic patterns that underlie it.

Section 4: Aggregate Productivity and the Macro-Micro Connection

- Brynjolfsson, Erik, Daniel Rock, and Chad Syverson. Forthcoming. "Artificial Intelligence and the Modern Productivity Paradox: A Clash of Expectations and Statistics"), in *Economics of Artificial Intelligence*, Agrawal, Gans, and Goldfarb (eds.).
- Byrne, David M., John G. Fernald, and Marshall B. Reinsdorf. 2016. "Does the United States Have a Productivity Slowdown or a Measurement Problem?" *Brookings Papers on Economic Activity*, Spring, 109–182.
- Decker, Ryan, John Haltiwanger, Ron Jarmin, and Javier Miranda. 2018. "Changing Business Dynamism and Productivity: Shocks vs. Responsiveness." NBER WP 24236.
- Fernald, John G., Robert E. Hall, James H. Stock, and Mark W. Watson. 2017. "The Disappointing Recovery of Output after 2009." NBER WP 23543.
- Gordon, Robert J. 2016. The Rise and Fall of American Growth. Princeton University Press.
- *Syverson, Chad. 2017. "Challenges to Mismeasurement Explanations for the U.S. Productivity Slowdown." *Journal of Economic Perspectives*, 31(2), 165-86.