

# “Syllabus for Growth and Productivity”

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Stockholm, PhD Program in Economics

Spring, April–May, 2023.

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## Course purpose

We will study firm heterogeneity in various macroeconomic contexts. The course has the aim of providing basic theory of firm heterogeneity and applications thereof over the business cycle or in the long-run. It also seeks to acquaint the students with the empirical literature summarized by stylized facts and to illustrate how theory and measurement connect. Concepts like TFPQ, TFPR, markups, allocative efficiency, etc. are introduced and discussed. Potential applications are (but are not limited to): misallocation, firm dynamics, market power, input-output structure, frictional investment decisions, etc.

## Examination

In order to earn credit for the course students are supposed to write a term paper with a research idea or select a recent research paper from a reading list (or another paper on the overall topic of the course) and hand in a referee report on the paper.

## Readings

The main readings are:

- ★ Aghion, Philippe, Antonin Bergeaud, Timo Boppart, Peter J. Klenow, and Huiyu Li. “A theory of falling growth and rising rents.” No. w26448. National Bureau of Economic Research, 2019.
- ★ Cavenaile, Laurent, Murat Alp Celik, and Xu Tian. “Are Markups Too High? Competition, Strategic Innovation, and Industry Dynamics.” Working paper (2021).

- ★ De Ridder, Maarten. “Market Power and Innovation in the Intangible Economy.” Working paper (2022).
- ★ Engbom, Niklas. “Misallocative Growth.” Working paper (2023).
- ★ 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.
- ★ Hopenhayn, Hugo A. “Entry, exit, and firm dynamics in long run equilibrium.” *Econometrica: Journal of the Econometric Society* (1992): 1127–1150.
- ★ Hopenhayn, Hugo, and Richard Rogerson. “Job turnover and policy evaluation: A general equilibrium analysis.” *Journal of political Economy* 101.5 (1993): 915–938.
- ★ Hsieh, Chang-Tai, and Peter J. Klenow. “Misallocation and manufacturing TFP in China and India.” *The Quarterly journal of economics* 124.4 (2009): 1403–1448.
- ★ Klette, Tor Jakob and Samuel Kortum. “Innovating Firms and Aggregate Innovation.” *Journal of Political Economy* 112.5 (2004): 986–1018.
- ★ Melitz, Marc J. “The impact of trade on intra-industry reallocations and aggregate industry productivity.” *econometrica* 71.6 (2003): 1695–1725.
- ★ Perla, Jesse and Christopher Tonetti. “Equilibrium Imitation and Growth.’ *Journal of Political Economy* 122.1 (2014): 52–76.
- ★ Weiss, Joshua. “Market Concentration, Growth, and Acquisitions.” Working paper (2023).

In addition the course literature consists of a longer reading list with recent papers in this area. The reading list is given by:

- Atkin, David, Benjamin Faber, and Marco Gonzalez-Navarro. “Retail globalization and household welfare: Evidence from Mexico.” *Journal of Political Economy* 126.1 (2018): 1–73.
- Autor, David, David Dorn, Lawrence F. Katz, Christina Patterson, and John Van Reenen. “The fall of the labor share and the rise of superstar firms.” *The Quarterly Journal of Economics* 135, no. 2 (2020): 645–709.
- Baqaee, David Rezza, and Emmanuel Farhi. “Productivity and misallocation in general equilibrium.” *The Quarterly Journal of Economics* 135.1 (2020): 105–163.
- Baqaee, David, and Emmanuel Farhi. “The darwinian returns to scale.” No. w27139. National Bureau of Economic Research, 2020.

- Davis, Steven J., and John Haltiwanger. “Gross job creation, gross job destruction, and employment reallocation.” *The Quarterly Journal of Economics* 107.3 (1992): 819–863.
- Carvalho, V. M., and Grassi, B. (2019). “Large firm dynamics and the business cycle”, *American Economic Review*, 109(4), 1375–1425.
- De Loecker, Jan, Jan Eeckhout, and Gabriel Unger. ”The rise of market power and the macroeconomic implications.” *The Quarterly Journal of Economics* 135, no. 2 (2020): 561–644.
- Decker, Ryan, et al. “The role of entrepreneurship in US job creation and economic dynamism.” *Journal of Economic Perspectives* 28.3 (2014): 3–24.
- Edmond, Chris, Virgiliu Midrigan, and Daniel Yi Xu. How costly are markups?. No. w24800. National Bureau of Economic Research, 2018.
- Gilchrist, Simon, et al. “Inflation dynamics during the financial crisis.” *American Economic Review* 107.3 (2017): 785–823.
- Haltiwanger, John, Ron S. Jarmin, and Javier Miranda. “Who creates jobs? Small versus large versus young.” *Review of Economics and Statistics* 95.2 (2013): 347–361.
- Hsieh, Chang-Tai, et al. “The allocation of talent and us economic growth.” *Econometrica* 87.5 (2019): 1439-1474.
- Hsieh, Chang-Tai, and Peter J. Klenow. “The life cycle of plants in India and Mexico.” *The Quarterly Journal of Economics* 129.3 (2014): 1035–1084.
- Hsieh, Chang-Tai, and Esteban Rossi-Hansberg. “The industrial revolution in services”. No. w25968. National Bureau of Economic Research, 2019.
- Kehrig, Matthias, and Nicolas Vincent. “The micro-level anatomy of the labor share decline.” *The Quarterly Journal of Economics* 136, no. 2 (2021): 1031–1087.
- Kehrig, Matthias, and Nicolas Vincent. Good dispersion, bad dispersion. No. w25923. National Bureau of Economic Research, 2019.
- Restuccia, Diego, and Richard Rogerson. “Policy distortions and aggregate productivity with heterogeneous establishments.” *Review of Economic dynamics* 11, no. 4 (2008): 707–720.

## Contact information

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## Course plan

The course consists of 5 two hours lectures. The course structure will consist of:

- April 20, 9–11: Motivation, empirical facts on firm heterogeneity, workhorse theories of firm heterogeneity (Timo Boppart)
- April 21, 9–11: Misallocations and markups (Timo Boppart)
- April 28, 9–11: Growth through creative destruction; competition and growth (Joshua Weiss)
- May 5, 9–11: Growth through imitation; allocative efficiency and growth (Joshua Weiss)
- May 12, 9–11: How do large firms innovate? market structure and growth (Joshua Weiss)