## NILS HAAKON LEHR

Department of Economics 270 Bay State Rd, Room 515 Boston Massachusetts 02215 USA

Mobile: (617) 417-4235 Email: nilslehr@bu.edu Website: https://nilslehr.com

#### EDUCATION

Ph.D., Economics, Boston University, Boston, MA, May 2023 (expected)
Dissertation Title: *Essays on the Determinants of Economic Growth*Dissertation Committee: Stephen Terry, Pascual Restrepo, Tarek Hassan, David Lagakos

M.S., Economics, Barcelona School of Economics, Barcelona, Spain, 2016

B.S., Economics, Humboldt University Berlin, Berlin, Germany, 2014

#### FIELDS OF INTEREST

Macroeconomics, Economic Growth

#### **PUBLICATIONS**

"Nonprofits in Good Times and Bad Times," (with Christine Exley and Stephen Terry)

Journal of Political Economy Microeconomics, (forthcoming)

#### WORKING PAPERS

"R&D Return Dispersion and Economic Growth – The Case of Inventor Market Power", October 2022. Job Market paper.

"Did R&D Misallocation Contribute to Slower Growth?," October 2022.

"Optimal Gradualism" (with Pascual Restrepo), September 2022.

"Innovation in an Aging Economy," February 2022.

## WORK IN PROGRESS

"Making An Impact — Inventor Preferences and R&D Externalities"

#### **PRESENTATIONS**

American Economic Association, New Orleans, LA, 2023 (scheduled)

17th Annual Economics Graduate Student Conference of Washington University in St. Louis, St. Louis, MO, October 2022 (scheduled)

Green Line Macro Meeting, Boston, MA, 2022

Workshop on Entrepreneurial Finance and Innovation - Ph.D. Workshop, Online, 2021

ZEW International Conference on "The German Labor Market in a Globalized World: Trade,

Technology, and Demographics," Online, 2021

Green Line Macro Meeting, Boston, MA, 2020

## FELLOWSHIPS AND AWARDS

Best Second Year Paper Award, Department of Economics, Boston University, 2019-2020

#### WORK EXPERIENCE

RESEARCH ASSISTANCE

Professor Pascual Restrepo, Department of Economics, Boston University, 2018-2022 Professor Yuhei Miyauchi, Department of Economics, Boston University, 2020-2021 Professor Christine L. Exley, Negotiation, Organizations & Markets Unit, Harvard Business

School, Summer 2020

Professor Stephen J. Terry, Department of Economics, Boston University, Winter 2019

PROFESSIONAL EXPERIENCE

Senior Associate, Economic Consulting, Deloitte LLP, London, UK, 2016-2017

#### REFEREE EXPERIENCE

Management Science, Review of Economic Dynamics, Journal of Economic Behavior & Organization

#### **DEPARTMENTAL SERVICE**

Officer for Graduate Economic Association, Boston University, 2019-2020 Co-organizer of Macro (Summer) Reading Group, 2019-2022

#### TEACHING EXPERIENCE

Teaching Assistant, EC704: Advanced Macroeconomics, Department of Economics, Boston University, Spring 2019

Teaching Assistant, EC 102: Macroeconomics, Department of Economics, Boston University, Winter 2018

## **LANGUAGES**

Fluent in English and German. Intermediate Spanish.

COMPUTER SKILLS: MATLAB, STATA, R, Fortran, LaTeX

CITIZENSHIP/VISA STATUS: Germany/F1

#### REFERENCES

Professor Stephen J. Terry

Department of Economics Boston University Phone: (617) 353-4455

Email: stephent@bu.edu

**Professor David Lagakos** 

Department of Economics Boston University

Phone: (617) 353-8903 Email: lagakos@bu.edu Professor Pascual Restrepo

Department of Economics Boston University Phone: (617) 353-6824

Email: pascual@bu.edu

Professor Tarek A. Hassan

Department of Economics Boston University

Phone: (617) 353-7082 Email: thassan@bu.edu

# NILS HAAKON LEHR

# **R&D** Return Dispersion and Economic Growth – *The Case of Inventor Market Power* (Job Market Paper)

This paper documents large and persistent differences in R&D returns across listed US firms, with firms at the 75th percentile earning twice the median return. Furthermore, returns are consistently larger for highly innovative firms with a large inventor workforce. Systematic R&D return differences are surprising as workhorse endogenous growth models predict that R&D resources flow from low to high returns firms until return equalization. I show that R&D return dispersion can reflect heterogeneity in firms' market power over inventors in theory and provide evidence in favor of this hypothesis. I estimate that firms with high returns and those with a large inventor workforce face less elastic inventor supply, suggesting they have more inventor market power. Calibrating a Schumpeterian growth model to match this evidence, I find that inventor monopsony can account for 1/3 of the documented R&D return dispersion and slows growth by 4%, a welfare reduction of 2.1%.

#### Did R&D Misallocation Contribute to Slower Growth?

This paper identifies worsening R&D allocative efficiency as a potential driver of declining US economic growth. Within a simple endogenous growth framework, I develop a closed-form solution of the growth rate that can be decomposed into a frontier growth rate, only achievable with the growth-maximizing resource allocation, and an allocative efficiency measure, measuring the gap between realized and frontier growth. Combining the model with data on the innovation activity of US firms, I estimate that allocative efficiency declined significantly from 1975 to 2014. Comparing the 1975- 94 period to the 2005-14 period, I find that declining allocative efficiency predicts 40% slower economic growth in the latter period, which can explain the entire concurrent decline in economic growth as documented in the literature. I discuss potential drivers of declining allocative efficiency, including waning federal support of R&D, institutional and technological change, and increasing labor market power over inventors.

## **Optimal Gradualism**

(with Pascual Restrepo)

This paper studies how gradualism affects the welfare gains from trade, technology, and reforms. When people face adjustment frictions, gradual shocks create less adverse distributional effects in the short run. We provide formulas to quantify the distributional gains from gradualism. We also derive formulas for optimal short-run taxes on trade and technology, and show that there are welfare gains from inducing a more gradual transition via temporary distortions. These formulas can be used to compute the optimal timing of economic reforms or trade liberalizations. Using these formulas, we compute the welfare gains from gradualism and the optimal temporary taxes needed to mitigate the distributional consequences of rising import competition from China and the deployment of automation technologies substituting for routine jobs. We also use our formulas to study Colombia's trade liberalization in 1990 and show that optimal policy called for more gradual reform.