Michał Zator

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EDUCATION

PhD in Managerial Economics and Strategy, 2015-2020 (expected)
Kellogg School of Management, Northwestern University, USA

MSc in Applied Mathematics, 2011-2013 Wrocław University of Technology, Poland

BA in Finance, 2008-2011 Wrocław University of Economics, Poland

RESEARCH INTERESTS

Primary: Innovation, Corporate Finance
Secondary: Labor Economics

PHD COMMITTEE

Efrain Benmelech
Benjamin Friedrich
Benjamin Jones
David Matsa

RESEARCH PAPERS

- "Digitization and Automation: Determinants and Effects of Firms' Adoption Decisions" (2019)
- "Household Debt and Labor Supply" (2019)
- "Capital Structure and Adaptation to Shocks: Danish Firms During the Cartoon Crisis" (2019); with Benjamin Friedrich
- "Managing Debt in Relational Contracts" (2019); with Dan Barron and Jin Li
- "A note on using the Hodrick-Prescott filter in electricity markets." Energy Economics 48 (2015); with Rafał Weron
- "Revisiting the relationship between spot and futures prices in the Nord Pool electricity market." Energy Economics 44 (2014); with Rafał Weron
- "Transaction costs and volatility on Warsaw Stock Exchange: implications for financial transaction tax", Bank & Credit 45 (2014)

WORK IN PROGRESS

- Adopting and Financing Robots, with Efraim Benmelech
- Designation and Impact of Opportunity Zones, with David Matsa

WORK EXPERIENCE (selected)

- *Research assistant* (Jun 2014 - Jul 2015)
  ETH Zurich, Switzerland. Full-time research assistant to prof. Daniel Chen
- *Revenue Management & Pricing Specialist* (Sep 2013 - Jun 2014)
  PKP Intercity (Polish Railways); Warsaw, Poland
- *Tutor of Economics* (Oct 2009 - Jun 2014)
  14. High School in Wrocław, Poland

Summary of Interests in AI

Michał Zator

May 30, 2019

For more than a year I have been working on a project which studies the economic consequences of the last wave of new technologies. Using administrative data from Germany, which includes firm-level measures of digitization and automation (robots, data- and networks-related technologies such as Internet of Things, cloud computing etc.), I analyze determinants and effects on firms' investment in these technologies. Besides learning about patterns of technology adoption, I am trying to understand to what extent new technologies substitute and complement labor and how this varies across industries, types of workers and technology classes.

To do this, I employ two complementary approaches. I first show that labor scarcity typically increases technology adoption (e.g. in manufacturing or trade) but decreases it in some industries (e.g. finance). For identification, I use variation in labor scarcity driven by population aging. I then demonstrate similar heterogeneity of employment effects of technology, using difference in difference specification across industries and high- and low-adoption areas. Both approaches confirm that the last wave of new technologies typically substitutes rather than complements labor but highlight the importance of considering broad set of technologies, allowing for heterogenous effects and studying the adoption patterns.

This project reflects my broader interest in this topic. Currently I also work on another project related to a puzzle of adoption and productivity of robotics and in the future I intend to work on further questions, including e.g. the problem of job design in the face of technological change. I thoroughly enjoyed and benefitted from my last year participation in the PhD Workshop and the conference on Economics of AI and I hope that this year I will also have a chance to take part in this great event.