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Huilin Zhang

Department of Economics
Daniels School of Business, Purdue University
403 Mitch Daniels Blvd, W. Lafayette, IN 47907, USA

(+1) 765-337-9190
zhan3760@purdue.edu
https://huilin-zhang.github.io

Education

Ph.D., M.S., Economics, Purdue University — W. Lafayette, IN, USA, 2019 – present
Committee: Chong Xiang (Co-chair), Farid Farrokhi (Co-chair), David Hummels, Victoria Prowse
M.A., Economics, Sun Yat-sen University — Guangzhou, China, 2017-2019
B.A., Public Finance, Wuhan University — Wuhan, China, 2013-2017

Research Interests

Urban/Spatial Economics, International Trade, Applied Microeconomics

Research

Working Paper:

"The Productivity Externality of Working from Home: Welfare and Policy Implications" (PDF)

Works in Progress:

"How Globalization Changes the Level and Structure of Executive Compensation" with David Hummels, and Jakob R. Munch

"The Production of Human Capital in A System of Universities" with David Hummels

Research Experience

Research Assistant, Purdue University
David Hummels, Distinguished Professor of Economics — Fall 2022 – present
Research Assistant, Sun Yat-sen University
Zihui Yang, Professor of Finance — Fall 2017 – Spring 2018

Honors and Awards

Daniels School of Business Doctoral Research Funds, Purdue University — 2024
Business Doctoral Student Association Research Symposium Award, Purdue University — 2023
Krannert Certificate for Outstanding Teaching, Purdue University — Summer 2021
Outstanding Master's Thesis, Sun Yat-sen University — 2019
First Prize Scholarship for Graduate Students, Sun-Yat-sen University — 2017
Outstanding Student Scholarship, Wuhan University — 2013-2014, 2014-2015
Outstanding Freshman Scholarship, Wuhan University — 2013

Presentations

89th Annual Meetings of the Midwest Economics Association	2025
2024 National Association for Business Economics Tech Economics Conference	2024
Business Doctoral Student Association Research Symposium	2023

Teaching Experience

Purdue University

Instructor

Online Instructor: Principles of Economics (Econ 210)	Summer 2022, Summer 2021
Recitation Instructor: Principles of Economics (Econ 210)	Fall 2019

Teaching Assistant — Fall 2019 - Spring 2022

Intermediate Economics (Econ 511, Masters)	Spring 2022, Fall 2021
Mathematical Analysis for Economists (Econ 615, PhD)	Fall 2021
Econometrics (Econ 360, Undergraduate)	Spring 2021, Fall 2020
Microeconomics (Econ 251, Undergraduate)	Spring 2021
Game Theory (Econ 451, Undergraduate)	Spring 2021
Investment (Econ 590, Masters, Online)	Fall 2020
Principles of Economics (Econ 210, Undergraduate)	Spring 2020, Fall 2020
Macroeconomics (Econ 252, Undergraduate)	Fall 2019
Intermediate Microeconomic Theory (Econ 340, Undergraduate)	Fall 2019

Service

Purdue Trade-Spatial Student Reading Group	2023
Business Doctoral Student Association Peer Mentoring Program	2022

Skills

Economic Modeling, Causal Inference, Machine Learning, Stata, Matlab, Python, R, SQL

Languages

Chinese, English

References

Chong Xiang (Co-Chair)
Professor of Economics
Purdue University
cxiang@purdue.edu

Farid Farrokhi (Co-Chair)
Associate Professor of Economics
Boston College
farid.farrokhi@bc.edu

David Hummels
Professor of Economics
Purdue University
hummelsd@purdue.edu

Victoria Prowse
Professor of Economics
Purdue University
vprowse@purdue.edu

Abstract

The Productivity Externality of Working from Home: Welfare and Policy Implications

I study how the socially optimal level of onsite work differs from the market equilibrium. I develop a general equilibrium model in which workers decide how much to work onsite and work from home. Productivity spillovers can occur within and between onsite and remote workers. The balance between onsite and remote productivity spillover effects affects the gap between the socially optimal and the market equilibrium level of onsite work. I measure these spillovers by matching the model to U.S. survey data from 2022 to 2024 at the city-sector-work mode level. I find that, on average, a social planner could improve welfare by 2% by increasing hybrid workers' share of onsite time by 3% and increasing the number of fully onsite workers by 2%. This could be accomplished by offering a subsidy for onsite work equal to 11% of hybrid workers' gross income. Without the remote productivity spillovers, a similar level of welfare improvement would require larger changes: hybrid workers' share of onsite time would need to increase by 5%, and the number of fully onsite workers would need to increase by 3%. The subsidy would cost 15% of hybrid workers' gross income.

How Globalization Changes the Level and Structure of Executive Compensation

with David Hummels, and Jakob R. Munch

We build a model of CEO compensation that unites principal-agent and assignment models in the face of trade shocks that change the value of the firm. Interactive trade shocks have a greater impact on firm value when CEO effort increases, while additive shocks affect firm value independently of CEO effort. The model predicts that globalization changes CEO compensation through scale, volatility, and magnification channels. Using Danish matched worker-firm data, we find empirical results supporting these channels: (1) Exporting and offshoring increase the level of CEO compensation by increasing firm size and value; (2) More globally engaged firms are more volatile in their sales and value. The share of firm value paid to CEOs increases with the volatility of interactive shocks but decreases with the volatility of additive shocks; and (3) Higher-ability CEOs generate greater sales increases under positive demand shocks, magnifying the effect of interactive shocks.

The Production of Human Capital in A System of Universities

with David Hummels

We build a general equilibrium model to answer the following questions: (1) How do shocks—such as increasing manufacturing wages and technological changes—affect the number and quality of colleges and the distribution of human capital in society? (2) How do changes in borrowing costs affect intergenerational human capital formation? The model features matching between heterogeneous students and universities. Students receive higher human capital from a good match between their ability and university quality.