

Tianhao Zhao

Emory University
Department of Economics
Rich Memorial Building
Atlanta, GA 30322

Phone: (470) 424-3255
Website: clpr.github.io
Email: tianhao.zhao@emory.edu

Education

Ph.D. in Economics , Emory University (expected) Dissertation: Essays on housing and macroeconomics Advisor: Vivian Yue	2019-2025
M.A. in Economics , Emory University	2019-2022
B.S. in Economics (Financial Engineering), Beihang University	2014-2018

Research Interest

Macroeconomics, International finance, Computational economics

Research Papers

Working paper

Ding, C. and Zhao, T., 2024. Frictions, net worth shocks, and heterogeneous impacts. *Available at SSRN 4915272*.

Work in progress

Financial Dollarization, Exchange Rate, and Macroprudential Policy (with Cheng Ding, Vivian Yue, and Aliaksandr Zaretski)

Dissertation Chapters

Asymmetric impacts of net worth shocks on the U.S. economy: Evidence from U.S. counties.

Abstract: *This chapter examines the persistent and asymmetric effects of net worth shocks on the U.S. economy following the Great Recession, using a new county-level panel dataset (CountyPlus) covering 2003 to 2019. Employing local projections with functional coefficients, the study estimates semi-parametric impulse responses to capture the amplifying effects of downward nominal wage rigidity and collateral constraints at varying magnitudes of net worth shocks. The findings reveal substantial heterogeneous impacts of net worth shocks, which are notably more severe during economic busts.*

Downward nominal wage rigidity and collateral constraints: A theory for understanding the post-Great Recession U.S. economy.

Abstract: *This chapter develops a continuous-time heterogeneous agent model to explain the prolonged downturn of the U.S. economy following the Great Recession. The model incorporates downward nominal wage rigidity, collateral constraints, endogenous idiosyncratic unemployment risk, and illiquid housing wealth. Using the sequence-space Jacobian method for estimation and*

the CountyPlus dataset, the analysis reveals significant interactions between wage rigidity and collateral constraints, which together contribute substantially to the slow recovery of the recent U.S. economy.

Deep learning insights into geographically heterogeneous impacts of net worth shocks on U.S. household balance sheets.

Abstract: *This paper examines the spatial-temporal heterogeneity in the loss of U.S. household wealth during the Great Recession, addressing the challenges posed by the endogeneity of household net worth shocks and the interconnectedness of local economies. The study employs a deep neural network model with an embedded structural layer that treats counties as open, interconnected economies. Leveraging the CountyPlus dataset and a network structure representing economic linkages between U.S. counties, the model estimates the heterogeneous effects of net worth shocks while addressing endogeneity concerns.*

Journal Articles

Jiang, Y., Zhao, T. and Zheng, H., 2021. Population aging and its effects on the gap of urban public health insurance in China. *China Economic Review*, 68, p.101646.

Jiang, Y., Zheng, H. and Zhao, T., 2019. Socioeconomic status and morbidity rate inequality in China: based on NHSS and CHARLS data. *International Journal of Environmental Research and Public Health*, 16(2), p.215.

Wang, S., Zhao, T., Zheng, H. and Hu, J., 2017. The STIRPAT analysis on carbon emission in Chinese cities: An asymmetric laplace distribution mixture model. *Sustainability*, 9(12), p.2237.

Scholarly Presentation

Brown bag seminar, Nov 2024 (scheduled), Federal Reserve Bank of Atlanta

Midwest Macroeconomics Meetings, 2024, Purdue University

International Conference on Empirical Economics, 2024, Pennsylvania State University Altoona

Professional Service

Referee, BMC Public Health (SCI Q1)

Session chair, International Conference on Empirical Economics, 2024, Pennsylvania State University Altoona

Funding

Professional Development Support Conference Funds, Emory University

Teaching

Instructor, Emory University, Atlanta GA
ECON 112: Principles of Macroeconomics

Fall 2022

Teaching assistant, Emory University, Atlanta GA

ECON 421: Micro-econometric Data Analytics

Spring 2024

ECON 610: Macroeconomic Theory I

Fall 2023

ECON 212: Intermediate Macroeconomics

Fall 2023

ECON 363: Political Economy of China

Spring 2023

ECON 112: Principles of Macroeconomics

Spring 2022

ECON 363: Political Economy of China

Spring 2021

ECON 363: Political Economy of China

Fall 2020

Research Assistantship

Research assistant, Emory University, Atlanta GA

Fall 2023

For Esfandiar Maasoumi

Engaged in the research on the inference of automatic debiased machine learning.

Research assistant, Emory University, Atlanta GA

Spring 2023

For Vivian Yue

Conducted analysis on the development of digital currency.

Research assistant, Emory University, Atlanta GA

Fall 2021

For Kaiji Chen

Undertook empirical research on China's saving rate using survey data.

Research assistant, Emory University, Atlanta GA

Spring 2021

For Mi Luo

Analyzed the spillover effects of school performance on labor market outcomes

Research assistant, Beihang University, Beijing China

2017-2019

For Haitao Zheng Modeled China's public health system with overlapping generation models.

Software

Julia, Python, MATLAB, R, Stata, C, SAS, Fortran, SQL

References

Vivian Yue (Advisor)

Samuel Candler Dobbs Professor of Economics

Department of Economics, Emory University

Federal Reserve Bank of Atlanta

vyue@emory.edu

Tao Zha

Samuel Candler Dobbs Professor of Economics

Department of Economics, Emory University

Federal Reserve Bank of Atlanta

tzha@emory.edu

Kaiji Chen

Professor of Economics

Department of Economics, Emory University

Federal Reserve Bank of Atlanta

kaiji.chen@emory.edu

Esfandiar Maasoumi

Arts and Sciences Distinguished Professor of Economics

Department of Economics, Emory University

emaasou@emory.edu