

# Tianhao Zhao

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## Education

<b>Ph.D. Economics</b> , Emory University (expected) Dissertation: Essays on housing and macroeconomics Advisor: Vivian Yue	2019-2025
<b>M.A. Economics</b> , Emory University	2019-2022
<b>B.A. Economics</b> , Beihang University	2014-2018

## Research Interest

Macroeconomics, International finance, Computational economics

## Research Papers

### *Working paper*

Economic Frictions and Heterogeneous Impact of Net Worth Shocks (with Cheng Ding), 2024, SSRN: 4915272

### *Work in progress*

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

### *Dissertation Chapters*

The persistent impact of net worth shocks on the US economy: Evidence from the US counties.

**Abstract:** *This chapter explores the persistence of net worth shock effects on the US economy in the aftermath of the Great Recession using CountyPlus data. By applying LP-IV techniques, I estimate the persistence of these shock effects and investigate the amplification effect of DNWR and collateral constraint during this period. The findings indicate that the net worth shock effect is enduring, significantly impacting the US economy over an extended period. Furthermore, this effect is found to be contingent on the local economy's financial and nominal frictions and their interaction.*

Downward nominal wage rigidity and collateral constraint: A theory for understanding the post-Great Recession US economy.

**Abstract:** *This chapter studies the slow recovery of the US economy following the Great Recession, emphasizing the interaction between downward nominal wage rigidity (DNWR) and collateral constraints. It proposes a continuous time quantitative model featuring heterogeneous agents and illiquid housing wealth. The results underscore the important role of both nominal and financial frictions in shaping the recent US economy in a general equilibrium setup.*

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

**Abstract:** *This paper examines the spatial-temporal heterogeneity in the loss of US household wealth during the Great Recession, addressing the challenges posed by the endogeneity of household net worth shocks and the interconnectedness of local economies. I employed a deep neural network model which integrates a structural model layer to handle endogenous data.*

### Journal Articles

Population Aging and Its Effects on the Gap of Urban Public Health Insurance in China (with Yunyun Jiang and Haitao Zheng), 2021, *China Economic Review*.

Socioeconomic Status and Morbidity Rate Inequality in China: Based on NHSS and CHARLS Data (with Yunyun Jiang and Haitao Zheng), 2019, *International journal of environmental research and public health*.

The STIRPAT Analysis on Carbon Emission in Chinese Cities: An Asymmetric Laplace Distribution Mixture Model (with Shanshan Wang, Haitao Zheng, and Jie Hu), 2017, *Sustainability*.

### Activities

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 (virtual)

### Professional service

Referee, BMC Public Health (SCI Q1)

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

## Funding

Professional Development Support Conference Funds, Emory University

## Teaching

<b>Instructor</b> , Emory University, Atlanta GA <i>ECON 112: Principles of Macroeconomics</i>	Fall 2022
<b>Teaching assistant</b> , Emory University, Atlanta GA <i>ECON 421: Micro-econometric Data Analytics</i>	Spring 2024
<i>ECON 610: Macroeconomic Theory I</i>	Fall 2023
<i>ECON 212: Intermediate Macroeconomics</i>	Fall 2023
<i>ECON 363: Political Economy of China</i>	Spring 2023
<i>ECON 112: Principles of Macroeconomics</i>	Spring 2022
<i>ECON 363: Political Economy of China</i>	Spring 2021
<i>ECON 363: Political Economy of China</i>	Fall 2020

## Research Assistantship

<b>Research assistant</b> , Emory University, Atlanta GA <i>For Esfandiar Maasoumi</i> Engaged in the research on the inference of automatic debiased machine learning.	Fall 2023
<b>Research assistant</b> , Emory University, Atlanta GA <i>For Vivian Yue</i> Conducted analysis on the development of digital currency.	Spring 2023
<b>Research assistant</b> , Emory University, Atlanta GA <i>For Kaiji Chen</i> Undertook empirical research on China's saving rate using survey data.	Fall 2021
<b>Research assistant</b> , Emory University, Atlanta GA <i>For Mi Luo</i> Analyzed the spillover effects of school performance on labor market outcomes	Spring 2021
<b>Research assistant</b> , Beihang University, Beijing China <i>For Haitao Zheng</i>	2017-2019

## Software

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

## References

**Vivian Yue (Advisor)**

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