

Yucheng Yang

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Julis Romo Rabinowitz Building
Department of Economics and Bendheim Center for Finance
Princeton University
Princeton, NJ 08544

Graduate Studies

Princeton University *2017-2023 (expected)*

PhD Candidate in PACM (Interdisciplinary PhD program)

Dissertation: “*Macroeconomics and Heterogeneous Reality with Machine Learning*”

REFERENCES

Professor Gianluca Violante
Department of Economics
Princeton University
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Professor Weinan E
Department of Mathematics
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Prior Education

University of Wisconsin-Madison *2015-2017*

M.A. in Economics

Peking University *2011-2015*

B.S. in Statistics, B.A. in Economics

Fields

PRIMARY Macroeconomics, Machine Learning, Finance

SECONDARY Monetary Economics, Data Science, Computational Economics

Job Market Paper

“Redistributive Inflation and Optimal Monetary Policy.” 2022.

Abstract: *Inflation has heterogeneous impacts on households, which then affects optimal monetary policy design. I study optimal monetary policy rules in a heterogeneous agent New Keynesian (HANK) model where inflation has redistributive effects on households through their different (1) consumption baskets, (2) nominal wealth positions, and (3) earnings elasticities to business cycles. I parameterize the model based on the empirical analysis of these channels using the most recent data. Unlike in representative agent models, a utilitarian central bank should adopt an asymmetric monetary policy rule that is accommodative towards inflation and aggressive towards deflation. Specifically, by accommodating stronger demand and higher inflation, the central bank benefits low-income and low-wealth households through nominal debt devaluation and higher earnings growth.*

Other Working Papers

1. “DeepHAM: A Global Solution Method for Heterogeneous Agent Models with Aggregate Shocks.” with Jiequn Han and Weinan E. 2021.

Selected presentations: Stanford, Philly Fed, UPenn, PKU, CICM.

Coverage: Sargent reading group.

2. “The Knowledge Graph for Macroeconomic Analysis with Alternative Big Data.” with Yue Pang, Guanhua Huang and Weinan E. 2020.

Selected presentations: FRB-Bank of Italy conference, Her Majesty’s Treasury, SoFiE Machine Learning Workshop.

Media Coverage: Quantpedia.

3. “Networks, Business Cycles, and Asset Pricing” with Wu Zhu. 2020.

Work in Progress

1. “Endogenous Disaster and Asset Pricing in HANK.” with Gianluca Violante. 2022.
2. “DeepHANK.” with Jiequn Han and Gianluca Violante. 2022.
3. “Financial Frictions and Dynamic Equity Network Formation in China.” with Jeff Cai, Xian Gu, Wei Xiong, Linda Zhao, and Wu Zhu. 2022.

Conference and Seminar Presentations (including scheduled)

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| 2023 | AEA (discussant, “AI in Economics” session) |
| 2022 | Stanford, Princeton, UPenn, Federal Reserve Bank of Philadelphia, Peking University, Tsinghua SEM, Monash-Warwick-Zurich Text-as-Data Workshop, CICM, NASMES (Miami Herbert), AMES (CUHK Shenzhen), CEA (Carleton), T2M (King’s College London). |
| 2021 | Her Majesty’s Treasury (UK), SoFiE Machine Learning Workshop, Princeton, RES, ESCoE, AMES (Curtin). |

pre 2020 Banca d'Italia and Federal Reserve Board Conference in Macroeconomics, IWH-CIREQ-GW Macroeconometric Workshop, National Bureau of Statistics of China, Princeton, 4th International Symposium on New Structural Economics.

Teaching

Instructor PhD Macroeconomic Perspectives on Inequality (Guest lecturer, Fall 2021)
Macroeconomic Analysis with Machine Learning & Big Data (Instructor, Summer 2019)

TA/Grader Intermediate Macroeconomics (Princeton, Spring 2021)
Mathematical Introduction to Machine Learning (Princeton, Fall 2018)
Chinese Financial and Monetary Systems (Princeton Master in Finance, Fall 2019&2020)
Introduction to Differential Equations (Princeton, Spring 2020)
PhD Macroeconomics II (UW-Madison, Spring 2017)
Master Macroeconomics I (UW-Madison, Spring 2016)
Master Econometrics I (UW-Madison, Fall 2015)

Professional Activities

Session Chair

RES 2021, 2021 ES Asian Meeting, 2022 ES North American Meeting, 2022 CEA.

Refereeing

Journal of Economic Dynamics and Control

Selected Honors and Grants

AFA Travel Grant Award, American Finance Association	2023
Academic Travel Grants, Princeton University	2019-2022
Philip G. Terrie '39 Fellowship, Princeton University	2017
IRP Graduate Research Fellowship, UW-Madison	2015-2017
Leadership Scholarship, CCER, Peking University	2015
Tsung-Dao Lee & Hui-Chun Chin Scholarship, Peking University	2013-2015
CSST Scholarship, UCLA	2014
Academic Excellent Award, Peking University	2013
CF40-Road King Scholarship, CCER, Peking University	2012-2015

Languages

Mandarin (native), English; Python (TensorFlow, PyTorch), Matlab, R, Stata, L^AT_EX.

Last updated: November 15, 2022