Yucheng Yang

yuchengy@princeton.edu ∘ sites.google.com/site/yangyucheng1993 ∘ 608-628-3604

Placement Director	Gianluca Violante	violante@princeton.edu	609-258-4003
Graduate Administrator	Laura Hedden	lhedden@princeton.edu	609-258-4006

Office Contact Information

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, Machine Learning, and Heterogeneous Reality"*

References

Professor Gianluca Violante
Department of Economics
Princeton University
609-258-4003
violante@princeton.edu

Professor Weinan E
Department of Mathematics
Princeton University
609-258-3683
weinan@princeton.edu

Professor Christopher Sims
Department of Economics
Princeton University
609-258-4033
sims@princeton.edu

Professor Jonathan Payne
Bendheim Center for Finance
Princeton University
609-258-9444
jepayne@princeton.edu

Prior Education

University of Wisconsin-Madison *2015-2017*

M.A. in Economics (PhD Candidate, Prelim Exams Passed)

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.

Inflation has heterogeneous welfare impact on households, which affects optimal monetary policy design. I study optimal nonlinear monetary policy rule in a model featuring three redistributive channels of inflation. First, the prices of products consumed by low-income households increase more during inflation. Second, unexpected inflation erodes the real value of nominal positions, and redistributes from net nominal creditors to the low- and middle-income net nominal borrowers. Third, the low-income and very top-income households have higher real earnings growth during inflation. I revisit the empirical evidence on these three channels, and develop a two-sector heterogeneous agent New Keynesian (HANK) model with non-homothetic preference for quantitative analysis. To evaluate social welfare under each policy rule, I solve the nonlinear transition dynamics along aggregate shocks. In this economy, a utilitarian central bank would adopt an asymmetric monetary policy that is more accomadative against inflation, but as aggressive as deflation, in constrast to the economy in absence of redistributive channels. The main winners under the optimal policy regime are the low-income and low-wealth households, through additional insurance and redistribution due to higher inflation.

Other Working Papers

1. "DeepHAM: A Global Solution Method for Heterogeneous Agent Models with Aggregate Shocks." with Jiequn Han and Weinan E. 2021.
2. "The Knowledge Graph for Macroeconomic Analysis with Alternative Big Data." with Yue Pang, Guanhua Huang and Weinan E. 2020.
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)

2023	AEA (discussant, "AI in Economics" session)
2022	Stanford, Princeton, UPenn, PKU, Federal Reserve Bank of Philadelphia, 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, Matlab, R, Stata, LaTeX.

Last updated: November 2, 2022