Rajarshi Datta

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CONTACT INFORMATION	University of Washington Department of Economics E-mail: rdatta2@uw.edu	Cell: +1 (206) 471-5153 Personal Page LinkedIn

EDUCATION

University of Washington — Seattle, WA
Ph.D. in Economics — June, 2024 *(Expected)*
- Dissertation Topic: Heterogeneous Asset Returns & Monetary Policy

M.A. in Economics, GPA: 3.84 — 2018 – 2020

Indian Statistical Institute — Kolkata, India
M.Sc. in Quantitative Economics — 2015 – 2017

St. Xavier's College, Kolkata — Kolkata, India
B.Sc. in Economics, Minor : Statistics & Mathematics — 2012 – 2015

INTERESTS

Wealth Inequality, Housing, Heterogenous Agent DSGEs, Applied Econometrics

RESEARCH

Working Papers

Heterogeneous Asset Returns and Distributional Effects of Monetary Policy *(**JMP**)*

Portfolio Choices, Asset Prices, and Wealth Inequality (with Yu-Chin Chen and Brian Greaney)

Choice of refinance & Hand to mouth status

SKILLS

Programming: Matlab, Python, SQL, Stata, Fortran, R, Julia, SAS, LaTeX

Econometrics: Time Series Forecasting, Bayesian Methods & MCMC Sampling, Regime Switching, Local Projections, Cointegration & VECM, Machine Learning, Extremum Estimation

Macro: Continuous time dynamic programming, Jump diffusion processes, Viscosity solutions

WORK EXPERIENCE

Amazon — Seattle, WA
Time Series Forecasting Intern (Worldwide Stores Finance) — 6/2023–9/2023
Research focus: Mixed Frequency Bayesian VARs, Nowcasting
- Worked to nowcast impact of macroeconomic variables on profit & loss accounts using conditional forecasts with high frequency data in Python and Matlab.

The Jain Family Institute (JFI) — Remote
Macroeconomic Research Assistant (with Claudia Sahm) — 6/2022–6/2023
Research focus: Fed Framework Review, Inequality & Labor Market Tightness
- Developed a Heterogeneous Agent New Keynesian model to evaluate Central Bank policy options.
- Extensive applied econometric work with micro data for US households like SCF, CE, PSID.

Deloitte — Hyderabad, India
Associate Solution Advisor (Model Risk Management) — 5/2017–6/2018
- Worked in Anti Money Laundering and Model Validation for Comprehensive Capital Analysis Review (CCAR) projects.

D.E. Shaw & Co. — Hyderabad, India
Summer Finance Intern (FinRes/FundamentalReasearch Department) — 5/2016–7/2016
- Worked in evaluation and forecasting of financial data from multiple sources.

HONORS	Henry T. Buechel Memorial Fellowship, University of Washington	Spr22
	Grover and Creta Ensley Fellowship, University of Washington	Aut21
	James K. & Viola M. Hall Fellowship, University of Washington	Spr19

TEACHING EXPERIENCE

Graduate Teaching Assistant
- ECON 509 (Graduate Macroeconomics)   Spr21,22

Instructor
- ECON 201 (Introduction to Macroeconomics)   Sum20,Win22
- ECON 200 (Introduction to Microeconomics)   Aut20

Teaching Assistant
- QSCI 292 (Calculus for Biologists II)   Win24
- QSCI 291 (Calculus for Biologists I)   Aut23
- QMETH 201 (Introduction To Statistical Methods)   Spr23
- ECON 300 (Intermediate Macroeconomics)   Win21
- ECON 201 (Introduction to Macroeconomics)   Aut18-Spr20

SEMINARS & PRESENTATIONS

WEHIA 2024 - 27th Annual Workshop on Economics with Heterogeneous Interacting Agents, University of Bamberg, July 9-11

Virtual - 2024 ISAFE Thailand Conference, Kasetsart University, July 8-10

7th International Workshop on Financial Markets and Nonlinear Dynamics, June 1-2, 2023

2023 Eastern Economic Association Annual Meetings, February 23-26, 2023

Paper Presentation - JMP at MTI Brownbag, University of Washington, March 2023

GRADUATE COURSEWORK

- ❑ Incomplete Market Models
- ❑ International Finance
- ❑ Macroeconomics of Safe Assets
- ❑ Econometric Theory
- ❑ Empirical Asset Pricing
- ❑ Contract Theory
- ❑ International Trade Theory
- ❑ Optimization Techniques
- ❑ Non-cooperative & Cooperative Game Theory
- ❑ Mechanism Design
- ❑ Industrial organization
- ❑ Auction Theory

REFERENCES

Professor Yu-chin Chen (committee chair)
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Seattle, WA, USA
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Professor Brian Greaney (committee chair)
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OTHER INFORMATION

Language: English (Fluent), Bengali, Hindi
Citizenship: India

Heterogeneous Asset Returns and Monetary Policy Redistribution   *(Job Market Paper)*
(*R. Datta*)

In a distributional examination of monetary policy impacts, my study explores how changes in the federal funds rate affect short-term consumption dynamics through the wealth inequality channel. Differential returns and prices of housing and equity along with heterogeneous marginal propensities to consume out of income across households, cause uneven effects of monetary policy on individuals with different net wealth. Exploring the impacts unveils surprising results contrasting to existing literature: a 1% federal funds rate drop increases consumption of outright homeowners by more than double relative to mortgage holders (3.02% vs 1.43%), yields a 1.72% rise for older individuals with a 1.29% boost for younger ones. The middle 50-90% net wealth distribution gain nearly twice as much as the bottom 50% (1.51% vs 0.8%). The analysis unveils varying group susceptibilities to monetary policy, underscoring the diversified effects based on housing tenure, age, and borrowing constraints. Besides identifying winners and losers, I also study how the distribution affects the aggregate. A 1% reduction in the federal funds rate increases overall consumption by 1.63%. There also exists significant asymmetries at all levels with 1% increase curtailing aggregate consumption by merely 1.02%, signifying hurdles in achieving a 'soft landing.'

Portfolio Choices, Asset Prices, and Wealth Inequality
(*with Yu-chin Chen and Brian Greaney*)

The escalation in wealth inequality over recent decades underscores a substantial societal challenge, manifesting across both generational and racial divides. Notably, a stark disparity exists between the average wealth of households aged 20-39 and those aged 60 and above from the 1960s to 2019. Our investigation seeks to unearth the underlying mechanisms driving this trend, with a spotlight on changing asset returns as a pivotal contributor to burgeoning inequality. We meticulously explore three potential sources of disparity across birth cohorts and race: the vicissitudes of asset markets, varying levels of inheritance and debt at the outset of working life, and barriers to investment such as the costs associated with homeownership. Employing a dynamic heterogeneous-agent model, we delve into households' lifetime financial decisions, meticulously calibrating our model with the data from the Survey of Consumer Finances to scrutinize how asset returns, initial wealth, and investment opportunities collectively fuel the observed inequality trends. Our analytical journey extends to assessing the welfare effects and evaluating potential policy reforms to mitigate these entrenched disparities, aiming for a more equitable economic landscape.

Choice of Refinancing and Hand-to-mouth Status
(*R. Datta*)

What does the choice of refinancing reveal about the Hand-to-mouth (HtM) status of households? Preliminary empirical analysis from the SCF corroborates the interlinkage between household debt & HtM status. Further evidence from refinance approvals indicate strong demand for home equity extraction in periods of high unemployment often aided by higher house prices. Following Kaplan, Violante and Weidner (2014), I motivate their measurement by setting up a 3 period partial equilibrium model with heterogeneous preferences to investigate the importance of considering mortgages distinctly from other illiquid assets in the determination of HtM status. Better estimates of the same is imperative for understanding the transmission and redistributive effects of monetary policy & fiscal transfers. Simple qualitative experiments in a calibrated model strongly match the current trends in house prices, unemployment and mortgage refinancing.