Rajarshi Datta October, 2023

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 St. Xavier's College, Kolkata

2015 – 2017

B.Sc. in Economics, Minor: Statistics & Mathematics

Kolkata, India 2012 – 2015

INTERESTS

Wealth Inequality, Housing, Heterogenous Agent DSGEs, Applied Econometrics

RESEARCH

Working Papers

Heterogeneous Asset Returns and Monetary Policy Redistribution (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, C, Scikit-Learn, LATEX

Econometrics: Time Series Forecasting, State Space Models & Markov Switching, Local Pro-

jections, GARCH, Cointegration & VECM, Machine Learning, Extremum Estimation

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

WORK Experience Amazon

Seattle, WA 6/2023–9/2023

Time Series Forecasting Intern (Worldwide Stores Finance)

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.
- Impact of wealth inequality, labor market tightness on optimal monetary policy.

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

Associate Solution Advisor (FinRes/FundamentalReasearch Department)

5/2016-7/2016

• Worked in evaluation and forecasting of financial data from multiple sources.

HONORS Henry T. Buechel Memorial Fellowship, Spring 2022 University of Washington Grover and Creta Ensley Fellowship in Economic Policy, Autumn 2021 University of Washington James K. & Viola M. Hall Fellowship, Spring 2019 University of Washington **TEACHING Graduate Teaching Assistant EXPERIENCE** • ECON 509 (Graduate Macroeconomics) Spr21,22 Instructor • ECON 201 (Introduction to Macroeconomics) Sum20.Win22 • ECON 200 (Introduction to Microeconomics) Aut2020 **Teach Assistant** • QMETH 201 (Introduction To Statistical Methods) Spr2023 • ECON 300 (Intermediate Macroeconomics) Win2021 • ECON 201 (Introduction to Macroeconomics) Aut2018-Spr2020 SEMINARS & Paper Presentation - Heterogeneous Asset Returns and Monetary Policy Redistribution at MTI Brownbag, University of Washington, March 2023 PRESENTATIONS Paper Presentation - Choice of Refinancing & Hand-to-mouth Status at MTI Brownbag, University of Washington, November 2022 GRADUATE ☐ Incomplete Market Models ☐ International Trade Theory **COURSEWORK** ☐ International Finance ☐ Optimization Techniques ☐ Macroeconomics of Safe Assets ☐ Non-cooperative & Cooperative Game Theory ☐ Econometric Theory ☐ Mechanism Design ☐ Empirical Asset Pricing ☐ Industrial organization ☐ Contract Theory ☐ Auction Theory REFERENCES **Professor Yu-chin Chen** (committee chair) Professor Brian Greaney (committee chair) Department of Economics Department of Economics University of Washington University of Washington Seattle, WA, USA Seattle, WA, USA +1 (206) 543-6197 bg385@uw.edu yuchin@uw.edu **Professor Fabio Ghironi** (committee) **Professor Stephen Turnovsky** (committee) Department of Economics Department of Economics University of Washington University of Washington Seattle, WA, USA Seattle, WA, USA +1 (206) 543-5795 +1 (206) 685-8028 ghiro@uw.edu sturn@uw.edu Language: English (Fluent), Bengali, Hindi OTHER

INFORMATION

Citizenship: India

RESEARCH ABSTRACTS

(R. Datta)

Heterogeneous Asset Returns and Monetary Policy Redistribution

(Job Market Paper)

My research investigates the effects of monetary policy on wealth inequality and short term consumption dynamics due to changes in the federal funds rate. In this economy, housing and equity earn different rates of return while households exhibit heterogeneous marginal propensities to consume from their income, resulting in varying monetary policy impacts across the net wealth distribution. I find that a 1% decrease in the federal funds rate leads to a 1.63% increase in aggregate consumption, with an asymmetric effect: a 1% rate hike reduces consumption by only 1.02%, indicating potential challenges in achieving a 'soft landing.' Moreover, I examine the interplay between borrowing constraints and return variations based on housing tenure and age, revealing distinct group exposures to monetary policy shifts and identifying winners and losers. For instance, I quantify an aggregate redistribution effect, yielding a 3.02% consumption increase for outright homeowners and a 1.43% increase for mortgage holders following a 1% federal funds rate decrease. Additionally, middle-aged individuals experience a 1.57% consumption increase, while young individuals see a 1.29% increase under similar conditions. Notably, these effects exhibit pronounced asymmetry.

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.