Rajarshi Datta October, 2023

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INFORMATION Department of Economics Personal Page

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EDUCATION University of Washington Seattle, WA

Ph.D. in Economics 2018 –

• Dissertation Topic: Heterogeneous Asset Returns & Monetary Policy

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

Indian Statistical InstituteKolkata, IndiaM.Sc. in Quantitative Economics2015 – 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 Monetary Policy Redistribution R. Datta, August 2022

Inter-generational Wealth Inequality & Endogenous Portfolio Choice Over the Life-Cycle with

Yu-Chin Chen and Brian Greaney (ongoing)

Wealth Inequality & Business cycles: The Role of Housing R. Datta, August 2021

Choice of refinance & Hand to mouth status: Evidence from US data R. Datta, February 2020

SKILLS Programming: Matlab, Python, SQL, Stata, Fortran, R, Julia, SAS, C, Java, LATEX.

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

Time Series Forecasting, Local Projections, GARCH, Cointegration & VECM

Econometrics, Markov Switching, Machine Learning, Scikit-learn

WORK Time Series Forecasting Intern at Amazon from June 2023 - September 2023. Worked in developing Mixed Frequency Bayesian VARs for Nowcasting with high frequency data in Python and

Matlab.

Macroeconomic Research Assistant at the Jain Family Institute (JFI) from June 2022 - June 2023. Developed a Heterogeneous Agent New Keynesian model to evaluate monetary policy options.

Associate Solution Advisor at Deloitte from May 2017- June 2018. Worked in Anti Money Laundering and Model Validation for Comprehensive Capital Analysis Review (CCAR) projects.

Summer Internship at D.E. Shaw & Co. in FinRes/FundamentalReasearch Department during the period May-July 2016. Worked in evaluation and forecasting of financial data from multiple sources.

Henry T. Buechel Memorial Fellowship, HONORS 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 Sum20,Win22 • ECON 201 (Introduction to Macroeconomics) • 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, MTI Presentations Brownbag, University of Washington, 2023 Paper Presentation - Choice of Refinancing & Hand-to-mouth Status, MTI Brownbag, University of Washington, 2022. **G**RADUATE ☐ Incomplete Market Models ☐ International Trade Theory **C**OURSEWORK ☐ 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 yuchin@uw.edu bg385@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 sturn@uw.edu ghiro@uw.edu OTHER Language: English (Fluent), Bengali, Hindi

Information

Citizenship: India

RESEARCH ABSTRACTS

## **Heterogeneous Asset Returns and Monetary Policy Redistribution** (*R. Datta*)

(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.