

Eric Qian

ericqian@princeton.edu ◦ www.eric-qian.com

Office Contact Information

Department of Economics, Princeton University
Julis Romo Rabinowitz Building
Princeton, NJ 08544

Research Interests

Econometrics, Macroeconomics, Monetary Economics, Labor Economics

Education

Princeton University	
Ph.D. Candidate in Economics	2020-2026 (<i>Expected</i>)
M.A. in Economics	2020–2022
New York University	
Non-Degree Student	2018–2019
University of North Carolina at Chapel Hill	
Bachelor of Science in Mathematics and Statistics (Highest Distinction)	2014–2018
Duke University	
Minor in Economics (Robertson Scholars Program)	2014–2018

Honors and Awards

Marimar and Cristina Torres Prize for Best Third Year Paper, Princeton University	2023
Harold Willis Dodds Merit Fellowship in Economics, Princeton University	2020–2021
Princeton University Graduate Fellowship	2020–
VAULT Award, Federal Reserve Bank of New York	2018, 2020
Robertson Scholars Program , UNC-Chapel Hill and Duke University	2014–2018
Departmental Highest Honors, UNC-Chapel Hill (Department of Statistics and Operations Research)	2018
Honors Carolina Laureate, UNC-Chapel Hill	2018
Phi Beta Kappa, UNC-Chapel Hill	2018

Publications and Ongoing Projects

1. **Heterogeneity-robust granular instruments**. Working paper (2023). *Torres Prize*.

Granular instrumental variables have experienced sharp growth in empirical macro-finance. Their attraction lies in their applicability to a wide set of economic environments like demand systems and the estimation of spillovers. I propose a new estimator—called robust granular instrumental variables (RGIV)—that, unlike GIV, allows for heterogeneous responses across units to the aggregate variable, unknown shock variances, and does not rely on skewness of the size distribution of units. Its generality allows researchers to account for and study unit-level heterogeneity. I also develop an overidentification test that evaluates the RGIV’s compatibility with the data and a parameter restriction test that evaluates the appropriateness of the homogeneous coefficient assumption. In simulations, I show that RGIV produces reliable and informative confidence intervals.

2. **Are Inflationary Shocks Regressive? A Feasible Set Approach** with Felipe Del Canto, John Grigsby, and Conor Walsh. Working paper (2023).

We develop a framework to measure the welfare impact of inflationary shocks throughout the distribution. The first-order impact of a shock is summarized by the induced movements in agents’ feasible sets: their budget constraint and borrowing constraints. To measure this impact, we combine estimated impulse response functions with micro-data on household consumption bundles, asset holdings and labor income for different US households. Applying the framework, we find that inflationary oil shocks are regressive, but a monetary expansion is progressive. In both cases, the dominant channel is the effect of the shock on asset accumulation, not movements in goods prices or labor income.

3. **SVAR Identification From Higher Moments: Has the Simultaneous Causality Problem Been Solved?** with José Luis Montiel Olea and Mikkel Plagborg-Møller. *AEA Papers and Proceedings* (2022).

Two recent strands of the literature on Structural Vector Autoregressions (SVARs) use higher moments for identification. One of them exploits independence and non-Gaussianity of the shocks; the other, stochastic volatility (heteroskedasticity). These approaches achieve point identification without imposing exclusion or sign restrictions. We review this work critically, and contrast its goals with the separate research program that has pushed for macroeconometrics to rely more heavily on credible economic restrictions and institutional knowledge, as is the standard in microeconomic policy evaluation. Identification based on higher moments imposes substantively stronger assumptions on the shock process than standard second-order SVAR identification methods do. We recommend that these assumptions be tested in applied work. Even when the assumptions are not rejected, inference based on higher moments necessarily demands more from a finite sample than standard approaches do. Thus, in our view, weak identification issues should be given high priority by applied users.

4. **A Large Bayesian VAR of the U.S. Economy** with Richard Crump, Stefano Eusepi, Domenico Giannone and Argia Sbordone. *Federal Reserve Bank of New York Staff Reports* (August 2021).

We model the United States macroeconomic and financial sectors using a formal and unified econometric model. Through shrinkage, our Bayesian VAR provides a flexible framework for modeling the dynamics of thirty-one variables, many of which are tracked by the Federal Reserve. We show how the model can be used for understanding key features of the data, constructing counterfactual scenarios, and evaluating the macroeconomic environment both retrospectively and prospectively. Considering its breadth and versatility for policy applications, our modeling approach gives a reliable, reduced form alternative to structural models.

5. [Nowcasting the Great Recession](#) with Patrick Adams, Domenico Giannone, Argia Sbordone, and Mihir Trivedi. Chapter in *Alternative Economic Indicators* (2020).

We assess the New York Fed Staff Nowcast's ability to provide accurate, early estimates of GDP in two case studies. First, using real-time data, we track the movements of real GDP predictions during the Great Recession. In the decline and subsequent recovery, the nowcast provides an early and reliable signal for the direction of growth. Second, we investigate how the 2019 partial federal government shutdown affected the ability to monitor macroeconomic conditions. Simulating similar patterns of data scarcity for past quarters, we find that the releases unaffected by the shutdown provide ample information for generating accurate predictions.

Blog Articles

1. [What Do Financial Conditions Tell Us about Risks to GDP Growth?](#) with Patrick Adams, Tobias Adrian, Nina Boyarchenko, Domenico Giannone, and Nellie Liang. Federal Reserve Bank of New York, *Liberty Street Economics* (May 21, 2020).
2. [Just Released: Historical Reconstruction of the New York Fed Staff Nowcast, 2002–15](#) with Patrick Adams, Domenico Giannone, and Argia Sbordone. Federal Reserve Bank of New York, *Liberty Street Economics* (July 12, 2019).
3. [Global Trends in Interest Rates](#) with Marco Del Negro, Domenico Giannone, Marc Giannoni, Andrea Tambalotti, and Brandyn Bok. Federal Reserve Bank of New York, *Liberty Street Economics* (February 27, 2019).
4. [Monitoring Economic Conditions during a Government Shutdown](#) with Patrick Adams, Domenico Giannone, and Argia Sbordone. Federal Reserve Bank of New York, *Liberty Street Economics* (February 5, 2019).
5. [Opening the Toolbox: The Nowcasting Code on GitHub](#) with Patrick Adams, Brandyn Bok, Daniele Caratelli, Domenico Giannone, Argia Sbordone, Camilla Schneier, and Andrea Tambalotti. Federal Reserve Bank of New York, *Liberty Street Economics* (August 10, 2018).

Research Positions

Research Assistant to Mikkel Plagborg-Møller	Summer 2021, Summer 2022
Research Assistant to John Grigsby	Spring 2022
Senior Research Analyst, Federal Reserve Bank of New York	2018–2020
Summer Analyst, Federal Reserve Bank of New York	2017

Teaching Experience

Macroeconomic Analysis for Policymakers (Advanced), Princeton University	Spring 2023
Teaching Assistant for John Grigsby	
Statistics and Data Analysis for Economics, Princeton University	Fall 2022
Teaching Assistant for Oscar Torres-Reyna	

Professional Activities

Refereeing

Quantitative Economics, Journal of Applied Econometrics

Skills

MATLAB, R, Julia, L^AT_EX, Python, Stata, EViews, SAS

Additional Information

Nationality American

Activities Running, making coffee, tennis, cello

Services First-year Graduate Student Mentor

Last updated: April 2023