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Office Contact Information
Two Sigma Investments, LP
100 6th Ave
New York, NY 10013

Personal Information:
Gender: Male Citizenship: China, People's Republic

Graduate Studies:
Ph.D. in Economics Princeton University, 2016 - 2022
Dissertation Title: *"Essays on Estimating Impulse Responses in Macroeconometrics*"
Committee: Christopher A. Sims, Mikkel Plagborg-Møller, Mark W. Watson

Master of Arts in Economics Princeton University, 2016 - 2018

Undergraduate Studies:
Bachelor of Economics in Finance and Banking Peking University, 2012 - 2016
Bachelor of Science in Mathematics and Applied Mathematics Peking University, 2012 - 2016

Current and Former Positions:
Two Sigma Investments, 2022 - present
Systematic Macro Research Dept, Quantitative Researcher
Conducted research to build systematic models for asset pricing and portfolio management for macro-related financial assets. Developed new methods to improve forecasting accuracy and monetization performance.

Morgan Stanley, 2021
Automated Market Making Dept, Quantitative Strategy Summer Intern
Managed automated market making strategies for listed options on numerous U.S. exchanges to provide liquidity. Monitor key procedures of volatility fitting and delta hedging.

Research Fields:
Primary fields: Empirical Macroeconomics, Time Series Econometrics
Secondary fields: Financial Economics

Teaching Assistant Experience:
Princeton ECO 517: Graduate Econometric Theory I (TA, Fall 2018, Fall 2019, Fall 2020)
Princeton ECO 518: Graduate Econometric Theory II (TA, Spring 2018, Spring 2019, Spring 2020)
Princeton ECO 202: Statistics and Data Analysis for Economics (TA, Fall 2019)

Research Assistant Experience:
2019 Princeton University, Research Assistant to Prof. Mikkel Plagborg-Møller
2018 Princeton University, Research Assistant to Prof. Christopher A. Sims

Referee Experience:
Journal of Applied Econometrics, Journal of Economic Dynamics and Control

Seminar and Conference Activities:

2022	NBER Summer Institute
2022	ASSA Annual Meeting
2021	NBER-NSF Time Series Conference
2021	International Association for Applied Econometrics Annual Conference
2019	Macro Financial Modeling Winter Meeting

Honors, Scholarships, and Leaderships:

2016 - 2022	Princeton Graduate Economics Fellowship
2017	Vice President of Assoc. of Chinese Students and Scholars at Princeton Univ.
2013	Peking University Academic Excellence Award

Research Papers:

Local Projections vs. VARs: Lessons From Thousands of DGPs
(with Mikkel Plagborg-Møller and Christian K. Wolf)
Journal of Econometrics, 244(2), 105722 | NBER Working paper 30207

We conduct a simulation study of Local Projection (LP) and Vector Autoregression (VAR) estimators of structural impulse responses across thousands of data generating processes, designed to mimic the properties of the universe of U.S. macroeconomic data. Our analysis considers various identification schemes and several variants of LP and VAR estimators, employing bias correction, shrinkage, or model averaging. A clear bias-variance trade-off emerges: LP estimators have lower bias than VAR estimators, but they also have substantially higher variance at intermediate and long horizons. Bias-corrected LP is the preferred method if and only if the researcher overwhelmingly prioritizes bias. For researchers who also care about precision, VAR methods are the most attractive—Bayesian VARs at short and long horizons, and least-squares VARs at intermediate and long horizons.

Semiparametric Identification of SVAR Models with Zero Lower Bound
Working paper

The US federal funds rate was frequently constrained to zero after the Great Recession, and the Federal Reserve has since turned to unconventional monetary policy tools. This paper uses a structural vector autoregression with a Zero Lower Bound (SVAR-ZLB) model to characterize the censored nominal interest rate and the effect of unconventional monetary policy. The existing literature relies on the assumption of zero short-run effect of the unconventional monetary policy to identify this model, but this paper studies model identification without relying on this assumption. In the case of empirically relevant non-Gaussian shocks, this paper proposes a generic semiparametric identification scheme to prove point identification, without relying on the parametric form of the shock distribution. The key problem of model identification that this paper solves is to deal semiparametrically with the non-linearity arising from censoring of the nominal interest rate at zero. An efficient Bayesian inference routine is designed to facilitate model estimation in practice. The empirical results suggest that the unconventional monetary policy has a small and transitory effect.

International Evidence on Credit and Economic Activity
(with Christopher A. Sims)
Working paper

We estimate a structural VAR on a balanced panel of 10 countries to examine different causal channels that lead to comovement between aggregate credit and GDP. Among all the six structural shocks in our model, we find that there is one that pushes aggregate credit up and then later depresses GDP growth, but its effects are small in most countries. All the other five structural shocks still generate positive or zero comovement between aggregate credit and GDP. The shocks in our model are identified via variation across countries in their relative size, with their global trend taken into account. We also model the dependence between initial conditions and country constants in our Bayesian estimation to avoid the small-T dynamic panel bias.

Skills:

Software: Python, R, MATLAB, kdb+/q, C++, Stata, Linux
Languages: Mandarin Chinese (Native), English (Fluent)