Qian Li

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EDUCATION

Ph.D. (Candidate) in Economics — *Notre Dame, IN*
University of Notre Dame — Aug. 2016 - Expected Aug. 2023

M.A. in Applied Economics — *Washington, D.C.*
Georgetown University — Aug. 2014 - May 2015

B.S. in Mathematics and Applied Mathematics — *Jinan, China*
Shandong Normal University — Sep. 2009 - May 2013

RESEARCH EXPERIENCE

University of Notre Dame — *Notre Dame, IN*

Macroeconomic Forecasting: A Comparison of Econometric Models and Machine Learning Methods (in progress) — Jun. 2022 - present

- Forecasts macroeconomic and financial variables such as industrial production growth, employment, inflation, and stock indices in a data-rich environment with a large-scale comparison using MATLAB and Python.
- Compares forecasting accuracy across econometric and traditional machine learning methods.

QE and Welfare Gains under Commitment Monetary Policy at ZLB — Jun. 2020 - May 2022

- Studied the optimal monetary policy under commitment when the short-term rate hits zero lower bound (ZLB).
- Derived the optimal paths under commitment at the ZLB when QE is endogenously chosen by the central bank.
- Investigated QE at the ZLB under discretionary and commitment policies and quantified welfare improvement.

Broker-Dealer Leverage and Monetary Policy Risk-Taking Channel Analysis — Jan. 2018 - May 2019

- Re-examined important findings in literature work and extended their sample to a longer period.
- Analyzed the variations in the broker-dealer sector's risk-taking response to monetary policy shock with a time-varying parameter vector autoregression model using MATLAB.

PROFESSIONAL EXPERIENCE

University of Notre Dame — *Notre Dame, IN*
Lecturer, Statistics for Economics — Aug. 2019 – May 2020

- Instructor of record. Gave lectures and held office hours for two semesters undergraduate-level statistics courses.
- Designed curriculum and coursework on probability and sampling theory, estimation, hypothesis testing, etc.

Research Assistant for Prof. M. Bertanha — Aug. 2017 - May 2018

- Converted existing MATLAB code to Stata code. Debugged and fixed issues such as rounding discrepancies.
- Assisted in designing a Stata module to conveniently estimate and assess fuzzy RDD with multiple thresholds.

The World Bank Group — *Washington, D.C.*
Research Assistant, Development Prospects Group — Aug. 2015 - May 2016

- Analyzed economic and financial data from resources such as Haver Analytics and Bloomberg Terminal.
- Learned and conducted sign-restriction VAR analysis to examine spillovers from the BRICS countries.
- Assisted with emerging economies analysis chapters of the semi-annual report *Global Economic Prospects*.

SKILLS

Programming: MATLAB, Stata, Python, Julia, Eviews
Knowledge: Monetary Policy, Time Series Analysis (ARIMA, Bayesian VAR), Econometrics (OLS, Logit, PCA, 2SLS, IV, DiD, RDD), Machine Learning and Neural Network (k-NN, SVM, XGBoost, CNN, RNN/LSTM)