

FRANK (CHENZHONG) WU

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EDUCATION

- PURDUE UNIVERSITY** West Lafayette, Indiana
PhD Candidate in Economics May 2024
- *Primary field: **Econometrics, Bayesian Econometrics***
- *Secondary field: **Industrial Organization***
- *Master of Science in **Economics**, GPA: 3.91/4.00* May 2018
- UNIVERSITY OF MINNESOTA** Minneapolis, Minnesota
Carlson School of Management
- *Master of Business Administration (MBA)* May 2016
- *Emphases: **Finance, Accounting**, GMAT: 760/800, Carlson Full Tuition Scholarship*
- THE HONG KONG POLYTECHNIC UNIVERSITY** Hong Kong, China
- *Master of **Finance (Investment Management)*** May 2012
- SICHUAN INTERNATIONAL STUDIES UNIVERSITY** Chongqing, China
- *Bachelor of Arts in **English*** July 2009

RESEARCH

Manuscripts Under Review

- [1]: WU, Frank C. Z.: "Bayesian Collapsed Gibbs Sampling for a Stochastic Volatility Model with a Dirichlet Process Mixture," *Journal of Applied Econometrics*, forthcoming.
JAE Data Archive: <http://dx.doi.org/10.15456/jae.2022327.1200336261>
- [2]: WU, Frank C. Z.: "A High-dimensional Additive Nonparametric Model," *J. Econ. Dyn. Control*, Submitted.

Working Papers

- [3]: WU, Frank C. Z.: "Semiparametric Common Stochastic Volatility for Large Bayesian VARs," **JMP**.
- [4]: WU, Frank C. Z.: "A Flexible Scale Mixture of Normal Prior for High Dimensional Datasets."

TEACHING EXPERIENCE

- ECON 671: Econometrics I, Purdue University, Teaching Assistant (TA) Fall 2021 to 2023
- ECON 576/590: Machine Learning (I & II), Purdue University, TA (Online & In-person) Fall 2018 to 2023
- ECON 252: Principles of Macroeconomics, Purdue University, Instructor (Online) Summer 2020
- ECON 590: Financial Valuation and Decision Making, Purdue University, TA Spring 2020
- ECON 210: Principles of Microeconomics, Purdue University, Recitation Instructor Fall 2019

INDUSTRY EXPERIENCE

- **SIGMA-ALDRICH** Milwaukee, USA
Marketing Summer Intern May 2015 - July 2015
 - Collaborated with Product Management Team, Pricing Team, Finance Team, and Content Team to develop and implement an efficient, sustainable pricing process that aligns with pricing strategies.
- **PING AN SECURITIES** Shanghai, China
Institutional Sales Manager April 2013 - July 2014
 - Collaborated with equity research teams and delivered thorough product knowledge of equity research to institutional clients. Partnered across other departments to identify potential needs of clients and revenue opportunities by providing IPOs, private placements, equity lending, block trading and other financial products.
- **UBS SECURITIES** Equity Sales, Shenzhen, China, June 2012 - March 2013
- **UBS AG** Operations Analyst, Shanghai, China, August 2010 - August 2011
- **PAYPAL** Fraud Prevention Agent, Shanghai, China, September 2009 - July 2010

COMPUTER SKILLS

- MATLAB, Python

ACTIVITIES

- Secretary of Finance, UMN Professional Student Government 2015-2016
- Financial Risk Manager - Certified by the Global Association of Risk Professionals 2014-present
- Captain of Department Soccer Team 2006-2007

JOB MARKET PAPER ABSTRACT

- **Semiparametric Common Stochastic Volatility for Large Bayesian VARs:** In response to the recent COVID-19 pandemic, we propose a novel Bayesian vector autoregression (BVAR) model with a Dirichlet process mixture prior for handling transitory outliers in stochastic volatility. Our approach allows for automatic outlier detection and accurately captures these outliers using the Dirichlet process mixture. By analyzing several recent macroeconomic datasets, we demonstrate that our model yields improved point and density forecasts compared to existing models during the COVID-19 period. While our results for other historical periods are mixed, we show that the performance of our approach improves with larger sample sizes. Overall, our approach represents a valuable addition to the literature on BVAR models for outlier detection and stochastic volatility modeling.

CONFERENCES AND TALKS

- 33rd Annual Meeting of the Midwest Econometrics Group (2023)

ADDITIONAL INFORMATION

- Married with three kids

REFERENCES

- Josh Chan, Professor of Economics, Olson Professor in Management, Purdue University, chan196@purdue.edu
- Justin Tobias, Professor of Economics, Loeb Chair in Economics, Purdue University, jltobias@purdue.edu
- Mohitosh Kejriwal, Professor of Economics, Purdue University, mkejriwa@purdue.edu
- Xiao Wang, Professor and Interim Head of Statistics, Purdue University, wangxiao@purdue.edu