Seongbo Sim

Email: simseo@iu.edu   Phone: +82 10-2078-8620
Address: Wylie Hall, Indiana University,
100 South Woodlawn Avenue, Bloomington, IN 47405
Website: https://simseo520.github.io/

Education

Ph.D. in Economics   Expected Summer 2026

Indiana University, Bloomington, IN   GPA: 3.91/4.0

Committee: Christian Matthes (main advisor), Todd B. Walker (chair),
         Yoosoon Chang and Rupal Kamdar

M.A. in Economics   2017

Yonsei University, Seoul, South Korea   GPA: 3.94/4.0

Dissertation: "The Determinants of the Benchmark Interest Rates of Bank of Korea
       – Interest Rate Setting Behavior under Inflation Targeting Regime"

Committee: Jung Sik Kim (chair), Taeyoon Sung and Kwang Hwan Kim

B.A. in Economics and Philosophy (double major)   2013

Yonsei University, Seoul, South Korea   GPA: 3.68/4.0

High Honors

Research Interests

Macroeconomics, Macroeconometrics, Financial Economics, Monetary Economics

Working Papers

- "Portfolio Shifts and Financial Intermediation: A DSGE Analysis of U.S. Household Deposit Outflows" (job market paper).

  - **Abstract**: This paper develops a New Keynesian DSGE model with a segmented financial sector to study U.S. households' post-pandemic shift out of non-transaction deposits. Households allocate savings between deposits and bank-holding-company (BHC) debt subject to a financial-distress cost; BHC equity capital replaces lost deposits; retail banks extend credit lines; and a bank-funded shadow bank lends to riskier startups. Monetary, macroprudential, and a production-loan purchase facility are embedded. Calibrated and Bayesian-estimated on U.S. data (2009:Q3–2025:Q2), the model simulates a 24 percent of decline in deposits from 2022:Q1 to 2025:Q1, compared to a 20.4 percent of decline in non-transaction deposits of U.S. households. A household financial-distress shock reduces deposit shares, increases BHC investment, and reallocates credit away from traditional bank borrowers toward Nonbank Financial Institutions (NBFIs), raising their

investment. Variance decompositions attribute most movements in deposit shares to the household financial-distress shock, while technology, monetary and debt-to-investment shocks explain much of credit-volume variation.

- "A Holistic Approach to Macroeconomic Fundamentals: Joint Estimates of Natural Rates" (with Regis Barnichon, Christian Matthes and Byung Goog Park).

  - **Abstract**: We develop a method to jointly estimate natural rates—or 'stars'—from long-run macroeconomic data. The approach embeds prior information about natural rates into a time-varying parameter VAR with stochastic volatility. It explicitly accounts for measurement error and outliers, making it well suited for historical analysis, including episodes like the COVID-19 pandemic and the post-pandemic inflation surge.

Awards and Honors

- Economic Distinguished Alumni Fellowship, Indiana University, 2023–2024.

- National Humanities and Social Graduate Research Scholarship, Korea Student Aid Foundation, 2015

- Teaching Assistant Scholarship, Yonsei University, Fall 2014, Spring 2015

- Brain Korea21 Research Assistantship, National Research Foundation of Korea, Fall 2014, Spring 2015

- Graduate School of Economics Chair Professor Assistant Scholarship, Yonsei University, Fall 2013

  - Assisted Chair Professor Jun Kwang-woo.

- University Designated Scholarship(Truth), Yonsei University, Fall 2010, Fall 2011

Conference Presentations

- Western Economic Association International, The 90th Annual Conference, Honolulu, HI (2015)

  - **Title**: Interest Rate Setting Behavior for Korea: Role of External Factors
  - Co-authored with Jung-Sik Kim and Young-Ki Lee

Research Experience

Research Assistant

- Christian Matthes   Summer 2021

  - Indiana University, Bloomington (currently at the University of Notre Dame)

– Checked Matlab codes for the project on daily inflation.

- Jungsik Kim   2014

  – Yonsei University, Seoul.

  – Assisted the data analysis for the paper "Effects of Capital Gain Taxes on Revenue and Stock Trade Volume in Korea," published in *The Korea International Economic Association* (2014).

Teaching Experience

Associate Instructor

- Statistical Analysis for Business and Economics

  – Indiana University, Spring 2023 – Spring 2024.

  – 30+ students per semester.

  – The course is for undergraduate students majoring in Business who learn basic statistical concepts and applications using Excel.

Graduate & Teaching Assistant

- Statistical Analysis for Business and Economics

  – Indiana University, Fall 2019, Spring 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2025.

  – Assisted Senior Lecturer Nastassia Krukava.

  – The course is for undergraduate students majoring in Business who learn basic statistical concepts and applications using Excel.

- Fundamental of Economics for Business I

  – Indiana University, Fall 2020.

  – Assisted Teaching Professor Paul Graf.

  – The course is for undergraduate students majoring in Business who learn basic microeconomic concepts and applications.

- Macroeconomics B

  – Yonsei University, Fall 2014, Spring 2015, Fall 2015

  – Assisted Professor Jung Sik Kim.

  – The course is for students of Graduate School of Economics who learn intermediate macroeconomic theories and applications.

- International Finance

- Yonsei University, Fall 2014, Spring 2015, Fall 2015

- Assisted Professor Jung Sik Kim.

- The course is for undergraduate students who learn basic international financial theories and applications.

- International Finance

  - Yonsei University, Fall 2015

  - Assisted Professor Jung Sik Kim.

  - The course is for graduate students majoring in Economics who learn advanced international financial theories and applications.

- Economics of Money and Finance

  - Yonsei University, Fall 2014, Fall 2015

  - Assisted Professor Jung Sik Kim.

  - The course is for undergraduate students who learn basic monetary and financial theories and applications.

List of Coursework in Ph.D. Program

- **Microeconomic Theory:** Optimization Theory for Economic Analysis, Theory of Prices and Markets I & II, Game Theory

- **Macroeconomic Theory:** Macroeconomic Theory I & II, Seminar in Money

- **Econometrics:** Econometrics I-III, Microeconometrics

- **Macroeconometrics:** Macroeconometrics, Empirical Macro I & II

- **Finance:** Asset Pricing Theory, Empirical Finance

- **Statistics & Computing:** Bayesian Theory & Data Analysis, Machine Learning, Applied Machine Learning

- **Advanced Seminars:** Advanced Macro Seminar, Network Formation Games, Advanced Econometrics Seminar

- **Other:** Teaching Undergraduate Economics

Requirements for Ph.D. Program

- Obtained Ph.D. Candidacy   January 2023

- High passed on Third year paper   Summer 2022

    - **Title**: "Bayesian Estimation of the Four Equations New Keynesian Model"

    - **Committee**: Christian Matthes (chair), Yoosoon Chang, Laura Liu.

    - **Abstract**: This paper investigates the effects of "Quantitative Easing" using the four-equation New Keynesian model of Sims et al. (2023), which features market segmentation and financial frictions. The model is estimated on macroeconomic data covering the period after the Global Financial Crisis and represents a stylized economy in which the monetary authority can reduce the policy rate into negative territory to stimulate activity. As a new feature, I introduce habit formation in households' consumption. Habit formation helps capture short-run fluctuations of macroeconomic variables and generates additional persistence. Sims et al. (2023) show the expansionary effects of quantitative easing with relatively modest inflation using calibration. The Bayesian estimation of a modified model produces similar results and indicates a more substantial role for quantitative easing. I also find that an endogenous quantitative easing rule is necessary to represent the role of quantitative easing properly.

- High passed Macro Theory (Empirical)   Summer 2021

- High passed Micro/Macro Core Theory Exams   Summer 2020

Skills

Software: Matlab, LaTeX, Python
Languages: Korean (Native), English (Proficient)