

SEOKIL KANG
INDIANA UNIVERSITY
Curriculum Vitae
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CONTACT INFORMATION

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EDUCATION

Ph.D. Economics,	Indiana University,	May 2022 (Expected)
	Thesis Title: “ <i>Essays on Computation and Empirical Macroeconomics</i> ”	
M.A. Economics,	Yonsei University,	2016
B.A. Economics,	Yonsei University,	2014

RESEARCH FIELDS

Macroeconomics, Monetary and fiscal policy, Bayesian econometrics

WORKING PAPERS

Quantifying the Fiscal Backing for Monetary Policy (Job Market Paper)

Successful inflation targeting requires fiscal policy to adjust the primary surplus path to meet the changes in the market value of government debt due to monetary policy shocks. In this paper, I estimate the response of primary surpluses to a monetary policy shock and examine whether such a response is present in data, as suggested by the theory of monetary-fiscal policy interaction. The U.S. data estimates capture the primary surpluses response, but with some shortage compared to what the theory prescribes. This result indicates that while the U.S. monetary policy has pinned down the price level, there is room for improvement with sufficient fiscal backing. I document that the necessity of primary surplus response to monetary policy shocks results from the dominant discount rate effect from the empirical perspective.

Simulated Annealing Multiplicative Weights Algorithm for Solving a DSGE Model

This paper introduces a simulation-based adaptive algorithm to solve a DSGE model with a large state space, namely the curse of dimensionality. It aims to generate a stationary distribution over policy space which is concentrated on the optimal policy. The key strategy is to construct a finite policy space of heuristic policies. To update the distribution over policy space, the method adopts on-line computation via iterative simulation with emphasis on rolling-horizon control to foster the speed of algorithm. Subsequently, I deliver that the algorithm achieves theoretical convergence to the optimal value function and the stationary distribution over policy space is concentrated on the optimal policy. Application to solve the simple two-period RBC model follows as a sample exercise. The result shows the performance is desirable within the feasible number of iterations and size of restricted policy space respectively.

TEACHING, RESEARCH EXPERIENCE

Teaching Assistant	Intro to International Trade, Prof V. Lugovskyy Macroeconomics I(Ph.D.), Prof J. Bernstein	Fall 2017 Fall 2019, 2020, 2021
Associate Instructor (Full teaching responsibilities)	Method of Economic Analysis Intermediate Macroeconomics Theory Statistical Analysis for Business and Economics Macroeconomics I(Master)	Spring 2018 Fall 2018 Spring 2019, 2020 Spring 2021
Research Assistant	Prof T. Walker	Summer 2018, 2019

PRESENTATION

2021	KERIC (virtual), Macro Brownbag (Indiana University), SEA Annual Meeting (Houston, Scheduled)
2019	Hoosier Economics Conference (Indiana University)

COMPUTATION SKILLS

Julia, Matlab, Stata, HPC cluster, Dynare

SCHOLARSHIPS, AND FELLOWSHIPS

2016 - 2017	Graduate Fellowship, Indiana University
2016 - 2017	Top-up Fellowship, Indiana University
2016 - present	Teaching Assistantship, Indiana University

PERSONAL INFORMATION

Citizenship: South Korea (F1-visa)
Date of birth: July 16, 1988
Language: Korean(native), English(fluent)

REFERENCES

Professor Todd B. Walker (Co-chair) Indiana University walkertb@iu.edu 812-856-2892	Professor Eric M. Leeper (Co-chair) University of Virginia eml3jf@virginia.edu 434-924-3933
Professor Christian Matthes Indiana University matthes@iu.edu 812-855-3567	Professor Laura Liu Indiana University lauraliu@iu.edu 812-856-1238