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: "*Essays on Computation and Empirical Macroeconomics*"	
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 present value of the primary surplus path to meet 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 a 2% increase in primary surpluses total sum against a monetary contraction that raises the interest rate by 25 basis points. The result suggests that monetary contraction must be followed by fiscal contraction, mainly because of the dominant discount rate effect due to monetary policy shocks. I show that the expected future inflation path is the key to the monetary and fiscal policy interaction. Consequently, more aggressive inflation targeting monetary policy lessens the fiscal consequence.

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

PRESENTATION

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

COMPUTATION SKILLS

Julia, Matlab, Stata, HPC cluster, Dynare

SCHOLARSHIPS, AND FELLOWSHIPS

2021	Daniel J. Duesterberg Award, Indiana University
2021	F & E Payne Fellowship, Indiana University
2016 - present	Teaching Assistantship, Indiana University
2016 - 2017	Top-up Fellowship, Indiana University
2016 - 2017	Graduate Fellowship, Indiana University

PERSONAL INFORMATION

Citizenship: South Korea (F1-visa: STEM certified 3-year OPT)
Date of birth: July 16, 1988
Language: Korean(native), English(fluent)
Military Service: ROKAF, Honorable Discharged (2009.04 – 2011.05)

REFERENCES

Professor Todd B. Walker (Co-chair)
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