

# Naoya Nagasaka

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## Education

2020–Present    Ph.D. Student in Economics, Indiana University, US.

2018–2020    M.A. in Economics, Keio University, Japan.

2014–2018    B.A. in Economics, *Summa Cum Laude*, Keio University, Japan.

## Fields of Interest

Macroeconomics, Econometrics.

## Research

### *Working Paper*

#### Feedback in Regime Formation

This paper proposes regime-switching state space models with feedback from lagged continuous state variables to regime formation. Regime transition probabilities implied from such a regime rule can be incorporated into the Kalman filter with regime-switching coefficients. It is shown that the truncation step introduced in the filter to circumvent the path dependence problem has an asymptotically negligible impact on the resulting log likelihood. Consistency of the maximized likelihood estimator can be established as well. Two simulation exercises confirm the finite sample performance of the filter. I then study the monetary-fiscal policy mix using the regime-switching DSGE model with the proposed regime determination rule to find feedback channels from government debt and output to the policy regime.

#### Estimating the Missing Intercept (with Christian Matthes and Felipe Schwartzman)

Microeconometric approaches to answer macroeconomic questions regularly use time fixed effects. This leads to the well-known ‘missing intercept’ problem because fixed effects soak up average aggregate effects. As such, these results cannot be used to directly address policy questions requiring knowledge of policies’ aggregate effects. We present a statistical approach that leverages knowledge of these microeconometric results to jointly identify aggregate and idiosyncratic effects of changes in policy. As an application we revisit work by Nakamura and Steinsson (2014). We find that our methodology allows one to considerably tighten the estimate of a multiplier compared to a baseline using only aggregate data. Posterior estimates from the model imply an aggregate government spending multiplier smaller than one with at least 95% probability.

### *Work in Progress*

From Emergency to Normalcy: When Does Emergency Fiscal Policy Return to Normal? (with Yoosoon Chang and Gee Hee Hong)

### Research Experience

Adjunct Researcher, Faculty of Economics, Keio University, 2020.

Adjunct Research Fellow, Research Institute of Capital Formation, Development Bank of Japan, 2019–2020.

Research Assistant, Tokyo Foundation for Policy Research, 2018–2019.

### Teaching Experience

Teaching Assistant/ Graduate Assistant, Indiana University

Econometrics I (graduate), Fall 2023.

Macroeconometrics (graduate), Fall 2021, Fall 2022, Fall 2023.

Fundamentals of Economics for Business I, Fall 2021, Spring 2022, Spring 2023.

Fundamentals of Economics for Business II, Fall 2021, Spring 2022.

Statistical Analysis for Business and Economics, Fall 2022, Spring 2024.

Teaching Assistant, Keio University

Introduction to Economic History, Spring 2020.

Historical Perspective of Economic Analysis, Spring 2020.

Corporate Finance, Spring 2018, Fall 2018, Spring 2019, Fall 2019.

Independent Research Project, Spring 2018, Fall 2018, Spring 2019, Fall 2019.

### Presentation

2024: International Symposium on Econometric Theory and Applications

2023: Hoosier Economic Conference, Midwest Econometrics Group Meeting

### Honors, Awards, & Fellowships

Best Young Scholar Award, International Symposium on Econometric Theory and Applications, 2024.

Lloyd Orr Dissertation Fellowship, Department of Economics, Indiana University, 2024.

Travel Award, College of Arts and Sciences, Indiana University, 2023.

Best Graduate Paper Award, Hoosier Economic Conference, 2023.

Henry M. Oliver Award (for excellence in economic theory), Department of Economics, Indiana University, 2023.

Student Academic Appointment, Department of Economics, Indiana University, 2021–Present.

Graduate Fellowship (for distinguished applicants), College of Arts and Sciences, Indiana University, 2020–2021.

Research Encouragement Scholarship for Graduate Students, Keio University, 2018–2019.

Shinzo Koizumi Scholarship for Graduate Students, Keio University, 2018–2019.

Distinguished Undergraduate Thesis Award, Faculty of Economics, Keio University, 2018.

## Refereeing Service

Journal of Applied Econometrics.

## Others

Software: Matlab, Julia, Fortran, R, Python, Stata, Eviews, L<sup>A</sup>T<sub>E</sub>X.

Language: English (Fluent), Japanese (Native).