Cover Letter

Applicant

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Recommender

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Education

Ph.D. student, Economics, UCLA	2020–Current
M.A. in Economics, The University of Tokyo	2019
B.A. in Economics, The University of Tokyo	2017

Research Interests

Macroeconomics, Firm Heterogeneity

Ph.D. Courses in Macro

First Year Courses

- 202A: Macroeconomics: Dynamics and Growth Theory — A+
  Prof. Gary Hansen and Lee Ohanian
- 202B: Macroeconomics: Business Cycles — A+
  Prof. Pierre-Olivier Weill and Andrew Atkeson
- 202C: Macroeconomics: Topics in Macroeconomics — A+
  Prof. Ariel Burstein and Oleg Itskhoki

Second Year Courses

- 221A: Monetary Economics I — A+
  Prof. Lee Ohanian and Gary Hansen
- 281A: International Trade Theory — A
  Prof. Jonathan Vogel
- 221B: Monetary Economics II — ongoing
  Prof. Andrew Atkeson and Pierre-Olivier Weill
- 221B: Topics in Monetary Economics — ongoing
  Prof. David Baqaee
- 271B - Industrial Organization, Price Policies, and Regulation II — ongoing
  Prof. Hugo Hopenhayn
- 282B: Topics in International Economics — ongoing
  Prof. Ariel Burstein and Oleg Itskhoki

Publications

"The Aging Society, Savings Rates, and Regional Flow of Funds in Japan" with Shin-ichi Fukuda. Journal of the Japanese and International Economies, 2021.

"Regional Convergence under Declining Population: The Case of Japan" with Shin-ichi Fukuda. Japan and the World Economy, 2020.

Presentations

Asia-Pacific Economic Association, Japanese Economic Association Spring Meeting, The University of Tokyo. 2019

The University of Tokyo 2018

Awards & Grants

The Nakajima Foundation Overseas Scholarship 2020–

Research Fellow (DC1), Japan Society for the Promotion of Science (JSPS) 2019–2020

Grant-in-Aid for JSPS Fellows, Japan Society for the Promotion of Science (JSPS) 2019–2020

Full Exemption from Repayment for Graduate School Students with Particularly Outstanding Academic Achievement, Japan Student Services Organization (JASSO) 2019

Graduate Representative of Master's Program, Department of Studies of Contemporary Economy, Graduate School of Economics, The University of Tokyo 2019

Teaching

Teaching Assistant, The University of Tokyo

- Money and Banking 2017–2020
  Prof. Shin-ichi Fukuda and Mariko Tanaka
- Monetary Economics (Graduate) 2019
  Prof. Shin-ichi Fukuda
- Macroeconomics 2019
  Prof. Tomoyuki Nakajima
- International Finance 2017–2018
  Prof. Shin-ichi Fukuda, Takashi Kano, Sagiri Kitao, and Mariko Tanaka

Instructor, The Ministry of Economy Trade and Industry

- Economic Growth (Graduate Level) 2019–2020

Computer Skills

Python, MATLAB, Stata

Statement

My research interest lies in macroeconomics and firm heterogeneity. In one of my research projects, I try to answer the following research question: how economic shocks affect macroeconomy through firm and worker dynamics? This project is motivated by the following three empirical facts in the US after the Covid-19 pandemic and the 2008 financial crisis: (1) the unemployment rate was rapidly increased and then decreased after the pandemic while the recovery of the unemployment rate was slow after the financial crisis. (2) The number of new business formations has been increased after the pandemic and still at a historically high level while it decreased after the financial crisis. (3) Total factor productivity (TFP) sharply decreased after the pandemic while it did not decrease after the financial crisis. To explain these empirical facts, I'm constructing a model of the firm and worker dynamics based on Engbom (2019) and Bilal, Engbom, Mongey, and Violante. In these models, through on-the-job search, individuals gradually find better jobs and climb a job ladder. I believe that the shocks firms received after the Covid-19 pandemic are highly heterogeneous across firms while the shocks after the 2008 financial crisis are relatively uniform across firms. As a result, after the pandemic, firms that receive large negative shocks lay off workers while other firms hire these unemployed workers relatively soon. However, newly hired workers tend to start working in worse jobs than jobs they worked before. Continuing workers also tend to fall off the job ladder because a significant fraction of firms receives large negative shocks. If individuals fall off the job ladder, the opportunity cost of becoming entrepreneur decreases. Therefore, the highly heterogeneous shocks across firms would lead to a persistent increase in the number of new business formations. Also, the shocks and new business formation would cause large labor misallocation temporarily due to labor market frictions.

To complete this project, I need to solve the heterogenous-agent macroeconomic model numerically. Especially, to examine the impact of shocks, I need to calculate the transition path of the model described above. I expect that it will be challenging because solving for the transition path requires tracking the evolution of the distributions of firms and workers. Therefore, I am eager to attend the workshop and to master state-of-the-art solution methods for general equilibrium heterogeneous-agent models.

I have prepared enough for attending the workshop. Out of nine first-year Ph.D. courses at UCLA, I received A+ in eight courses and got the highest score in the final exams in at least five courses. By the time of the workshop, I will complete seven second-year Ph.D. courses on the topic of macroeconomics and international economics. I also have experience using Python and MATLAB in research projects.

Engbom, Niklas. 2019. "Firm and Worker Dynamics in an Aging Labor Market."
Bilal, Adrien, Niklas Engbom, Simon Mongey, and Giovanni L. Violante. 2022. "Firm and Worker Dynamics in a Frictional Labor Market." *Econometrica* forthcoming.