Application Cover Sheet – NBER Entrepreneurship Research Boot Camp 2025

Applicant's name: Ko Miura
PhD Student, University of Maryland at College Park
Department of Economics

Email: kmiura@umd.edu
Phone: 202-657-1885

Area of interest: Macroeconomics, Finance
Year of entry into the PhD program: 2022
Expected year of completion: 2028

Faculty member supplying a letter of recommendation:
Prof. Thomas Drechsel (drechsel@umd.edu)

KO MIURA
University of Maryland
Department of Economics
College Park, MD 20742
Phone: (202) 657-1885
Email: kmiura@umd.edu

EDUCATION

Ph.D. Economics, University of Maryland at College Park, August 2022-Present
M.S. Economics, University of Wisconsin-Madison, 2019
B.A. Economics, University of Tokyo, Japan, 2013

FIELDS OF INTEREST

Primary: Macroeconomics
Secondary: Finance

WORKING PAPERS AND WORK IN PROGRESS

"Monetary Policy and Productivity: The Growth-versus-Value Channel," work in progress

Abstract: I propose a novel channel through which monetary policy affects aggregate productivity. My hypothesis is as follows: firms with higher productivity growth rates have back-loaded cash flows on returns from investment, which makes the present value of those returns more sensitive to changes in discount rates, thus leading to higher investment sensitivity to monetary policy shocks. To investigate this hypothesis, I first empirically demonstrate that firms with a high market-to-book ratio—namely, growth firms—exhibit stronger investment responses to monetary policy shocks. Next, I construct a quantitative model that incorporates heterogeneity in firms' productivity growth rates to replicate the mechanism proposed in my hypothesis. Using this model, I show that in the event of a monetary tightening shock for example, firms with higher productivity growth rates reduce their investments more significantly, leading to a decline in aggregate productivity.

"The Macroeconomic Effects of Bank Regulation: New Evidence from a High Frequency Approach," work in progress, with Thomas Drechsel

Abstract: Bank regulation supports financial stability, but might constrain economic activity. This paper estimates the macroeconomic consequences of bank regulation using a high-frequency identification approach. We measure market surprises in a bank stock price index during a narrow time window around Federal Reserve speeches that primarily discuss the US banking system and its regulation. We then use two alternative procedures, based on sign restrictions or a narrative strategy, to elicit the variation in these market surprises that can plausibly be interpreted as news about bank regulation. News about bank regulation mitigate risk in the banking sector, but reduce economic activity by lowering bank lending. A 10 basis point regulation-induced reduction in bank risk premiums is accompanied by a 27.5 basis point peak increase in the unemployment rate. News about bank regulation are deflationary and increase credit spreads of nonfinancial firms.

"The Deposit Channel of Fiscal Policy," work in progress

Abstract: Fiscal expenditure directly increases bank deposits because the government makes payments to firms or households, which are saved in bank accounts. Does this increase in deposits affect the lending behavior of banks? By exploiting regional variations in federal military expenditure and using the identification strategy by Drechsler et al. (2017), I demonstrate that this "deposit channel of fiscal policy" actually works. A positive military expenditure shock causes a statistically significant increase in local deposits and local small business lending, even after controlling for changes in local economic conditions that could be affected by the shock.

PUBLICATIONS

"Central Bank Policy Announcements and Changes in Trading Behavior: Evidence from Bond Futures High Frequency Price Data," *The North American Journal of Economics and Finance,* Volume 59, January 2022, 101569, with Koichiro Kamada, Tetsuto Kurosaki, and Tetsuya Yamada

RESEARCH AND RELEVANT WORK EXPERIENCE

Research Assistant, Prof. Thomas Drechsel, University of Maryland, Spring 2023, Summer 2023, Fall 2023, Summer 2024, and Winter 2025
Research Assistant, Prof. Borağan Aruoba, University of Maryland, Fall 2024
Research/Teaching Assistant, Prof. Guido Kuersteiner, University of Maryland, Spring 2024

Economist, Bank of Japan, Tokyo, Japan, April 2013- May 2022
Algorithm Engineer/Data Scientist (Intern), PKSHA Technology, Tokyo, Japan, May 2022-July 2022, May 2023-August 2023

TEACHING EXPERIENCE

Teaching Assistant, Econometrics (undergraduate), University of Maryland, Fall 2022
Teaching Assistant, Money and Banking (undergraduate), University of Maryland, Fall 2022

GRANTS AND AWARDS

Honorable Mention Research Paper Scholarship, University of Wisconsin-Madison, Spring 2019

LANGUAGES

Japanese (native), English (fluent)

COMPUTATIONAL SKILLS

Python, Julia, Matlab, R, Stata, Eviews, Linux

ESSAY

Ko Miura, University of Maryland

I am a third-year PhD student in Economics at the University of Maryland at College Park, with research interests spanning macroeconomics, corporate finance, and the broader implications of macroeconomic policy on firm behavior. My current work explores a novel channel through which monetary policy can shape aggregate productivity. Specifically, I hypothesize that firms with higher productivity growth rates—and thus more back-loaded cash flows—experience a stronger investment response to changes in interest rates associated with monetary policy shocks. Empirically, I find that firms with high market-to-book ratios—often referred to as "growth firms"—exhibit particularly strong fixed capital investment responses to monetary policy shocks. To further validate this mechanism, I develop a quantitative macroeconomic model that incorporates heterogeneity in firms' productivity growth rates. The model analysis confirms that monetary tightening disproportionately decreases investment among high-growth firms, ultimately depressing aggregate productivity.

Looking ahead, I plan to extend this line of inquiry by examining how macroeconomic policies and macro-financial shocks alter the financing conditions of young, high-growth firms. In particular, I am interested in understanding how shifts in funding availability affect innovation pipelines, firm growth trajectories, and ultimately aggregate productivity.

While these projects primarily explore macroeconomic outcomes, they have clear ties to the entrepreneurial economics and finance literatures. Growth-oriented firms—especially start-ups and young ventures—are the engines of innovation, yet they face considerable volatility in securing external funding, making them highly sensitive to shifts in the macroeconomic environment, including monetary policy and financial shocks. By examining how these firms' growth trajectories interact with such macroeconomic conditions, my research helps illuminate the broader ecosystem in which entrepreneurs operate, encompassing access to capital, valuation changes, and the evolution of long-term innovation outcomes.

I am eager to attend the NBER Entrepreneurship Research Boot Camp to engage with leading scholars in entrepreneurial economics and finance, refine my methodologies and research plans, and deepen my understanding of cutting-edge research in this field. Through intensive lectures, discussions, and collaborative exercises, I hope to broaden my perspective and gain fresh insights at the intersection of macroeconomics and entrepreneurship. I look forward to sharing my work with peers who share a commitment to advancing rigorous, impactful research on entrepreneurship and firm dynamics.

UNIVERSITY OF MARYLAND
DEPARTMENT OF ECONOMICS - TYDINGS HALL - COLLEGE PARK, MD 20742 - USA

THOMAS DRECHSEL, PHD
Assistant Professor of Economics
drechsel@umd.edu
http://econweb.umd.edu/~drechsel/

Washington DC, February 2025

Dear colleague,

I am writing to enthusiastically recommend Ko Miura for the *NBER Entrepreneurship Research Boot Camp 2025*. Ko is a highly talented macroeconomist-in-training, with research interests in firm dynamics, financial frictions and monetary policy. I don't have the slightest reservation that Ko will be a fantastic participant in the boot camp.

I got to know Ko in several capacities: as a first-year graduate student at the University of Maryland, he was my teaching assistant; as a second-year graduate student he took my PhD topics course "The Macroeconomics of Imperfect Capital Markets"; since his second year, he has been working as my research assistant; and I have been his main dissertation advisor since the same time.

Ko is clearly the best graduate student that I have interacted with in my 5.5 years as a University of Maryland faculty member.

Ko's research examines a novel channel through which monetary policy influences aggregate productivity. The hypothesis is that firms with higher productivity growth—and thus more back-loaded cash flows—are more sensitive to discount rate changes, leading to larger fixed capital investment swings. Empirical evidence shows that high market-to-book firms ("growth firms") exhibit particularly strong investment responses to monetary policy shocks. To validate this, Ko develops a quantitative macroeconomic model incorporating firm heterogeneity in productivity growth. The model confirms that monetary tightening disproportionately reduces investment among high-growth firms, ultimately lowering aggregate productivity.

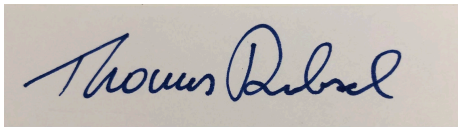
Apart from his own very interesting work, Ko has been a research assistant for my paper "Estimating the Effects of Political Pressure on the Fed: A Narrative Approach with New Data", which is now R&R at REStud. He has been an absolutely exceptional RA and the paper would not be where it is without him.

Furthermore, Ko and I have a joint research project which examines the effect of bank regulation on the macroeconomy, in particular on the tradeoff between mitigating risk and spurring growth and innovation. It is the first time in my career that I already offered a second-year student full co-authorship on a paper, which is testament to Ko's outstanding talent and promise as a researcher.

I firmly believe that the participation in the research boot camp would advance Ko's very promising research agenda. I am also highly confident that there would be strong mutual benefit for him and for whoever he interacts during the boot camp. I learned a great deal from Ko and I am sure the other participants and instructor would too.

Please do not hesitate to contact me with any questions.

Best regards,



Thomas Drechsel