February 3, 2025

Dean Ryu
Saïd Business School, University of Oxford
Park End Street, Oxford, OX1 1HP, United Kingdom
Email: dean.ryu@sbs.ox.ac.uk
Website: https://sites.google.com/view/deanryu
Mobile 1: + 82 10 9945 4690 (primary)
Mobile 2: +1 615 914 5771

Selection Committee
NBER Innovation Research Boot Camp 2025
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138

Dear NBER Innovation Research Boot Camp Committee Members,

I am applying for the NBER Innovation Research Boot Camp 2025 after reviewing the announcement on the NBER website. Currently, I am a Finance Ph.D. candidate at the University of Oxford, where I am supervised by Professor Mungo Wilson. In 2024, I was also a Visiting Ph.D. student at Harvard Business School, sponsored by Professor Lauren Cohen.

Attending this year's NBER Innovation Research Boot Camp would be invaluable in shaping my ongoing research. As a researcher in asset pricing, I am particularly interested in applying asset pricing concepts to political economy, law, and finance—areas closely related to the boot camp's objectives. For instance, my solo-authored work examines legal risk and firm valuation, analyzing how regulatory uncertainty influences corporate decision-making. Since firms frequently encounter legal risks during the innovation process, particularly related to patents and intellectual property, my research aligns closely with the core themes of this program.

Additionally, my co-authored work with Professor Mungo Wilson examines the relationship between government cycles, stock markets, and economic growth. We argue that divided government—where the sitting president does not control either chamber of Congress—induces political gridlock, which in turn hampers economic and stock market growth. Political and regulatory environments play a crucial role in shaping firms' incentives for innovation, particularly in uncertain economic conditions. Research suggests that political uncertainty and regulatory constraints significantly impact firms' innovation activities (e.g., Acemoglu & Linn, 2004; Bloom et al., 2007). Attending this boot camp will provide me with deeper insights into these dynamics and help refine my research framework.

I have not previously attended the NBER Entrepreneurship Boot Camp, and my letter of recommendation will be provided by Professor Mungo Wilson, my primary supervisor at Oxford's Saïd Business School.

Thank you for your time and consideration. I look forward to the opportunity to contribute to and learn from this prestigious program.

Sincerely yours,

Dean Ryu

Dean RYU

January, 2025

Saïd Business School, University of Oxford
Park End Street, Oxford, OX1 1HP
United Kingdom

Email: dean.ryu [at] sbs.ox.ac.uk
Personal website
School website

Education

University of Oxford — Oxfordshire, United Kingdom
Ph.D. Finance (expected completion date: 2026)
Saïd Business School and Exeter College

Harvard University — MA, United States
Visiting Ph.D. Program (Spring, Fall 2024)
Harvard Business School (Finance Unit)

University of Chicago — IL, United States
M.A. Social Sciences
MAPSS Economics Concentration

Korea University — Seoul, South Korea
B.A. Economics

Research Interests

Asset Pricing, Political Economy, and Law and Finance

List of Academic Research

(Major presentations by co-author(s) are marked as ★; upcoming events are included, if any)

Working Papers (From most to least active)

1. **Divided Government and the Stock Market [SSRN]**
with Theofanis Papamichalis and Mungo Wilson

Presented at: (1) Saïd Business School seminar (Oxford, UK 2023); (2) Harvard Graduate Student Workshop (Cambridge, US 2024); (3) UBS Quant Conference★ (London, UK 2024); (4) Industry Talk - Jefferies (Virtual, 2024); (5) FMA Asia/Pacific Elevator Pitch Sessions (Seoul, Korea 2024); (6) The 20th Annual Conference of the Asia-Pacific Association of Derivatives (APAD) (Busan, Korea 2024); (7) EFA (Bratislava, Slovakia 2024); (8) Q

group Fall Seminar★ (Denver Colorado, US 2024); (9) FMA (Grapevine Texas, US 2024) ; (10) Man Group and Oxford-Man Institute Workshop★ (London, UK 2025); (11) ASSA (San Francisco, US 2025)

2. **On the Time Variation of Aggregate Stock Returns and Cross-Sectional Anomalies [SSRN]**
with Theofanis Papamichalis

Presented at: (1) Inter-Finance PhD Seminar (Virtual, 2024); (2) Behavioural Finance Working Group (BFWG) 17th Annual Conference ★ (London, UK 2024); (3) FMA (Grapevine Texas, US 2024); (4) Research in Behavioral Finance Conference (RBFC; withdrawn); (5) SFA (Palm Beach Florida, US 2024)

3. **Long-History PCA in a Dynamic Factor Model with Weaker Loadings [SSRN]**
with Robert M. Anderson and Baeho Kim
Revise & Resubmit, Operations Research

Presented at: (1) UC Berkeley Economics ★ (Berkeley California, US 2021); (2) Saïd Business School Ph.D. Brown bag (Oxford, UK 2023); (3) FMA (Chicago, US 2023); (4) INFORMS Annual Meeting★ (Seattle, US 2024)

Work in Progress

4. **Legal Risk and the Cross-Section of Stock Returns [SSRN]**
solo-authored

Presented at: (1) FMA New Ideas Session (Grapevine Texas, US 2024)

5. **The Political Economy of Factor Zoo**
with Theofanis Papamichalis and Mungo Wilson

Research Experience and Other Employments

- **Research Assistant, Harvard Business School** 2024

  Provided research assistance to Professor Malcolm Baker

- **Ph.D. Intern, Samsung Life Insurance** 2023

  Summer intern (Economist at Financial Planning part) at Samsung Life Insurance (SLI)

- **Research Assistant, University of Oxford** 2020 - 2022

  Provided research assistance to Professor Mungo Wilson and Professor Renée Adams

- **Research Professional, UC Berkeley** 2017 - 2019

  Full-time pre-doctoral research professional at Consortium for Data Analytics in Risk (CDAR), UC Berkeley Department of Economics

Teaching Experience

Note: F - Fall (Michaelmas), W - Winter (Hilary), Sp - Spring (Trinity), Sm - Summer

Teaching Experience
(Courses where I acted as a main instructor or main teaching assistant)

- **Introduction to Finance (Non-Oxford Undergraduates)** Sm 2025, Sm 2024, Sm 2023

  Provided lectures covering asset pricing topics to undergraduate students abroad; first week of the two-weeks crash course at Oriel College Summer Institute

- **Introduction to Game Theory (Non-Oxford Undergraduates)** Sm 2025

  Provided lectures covering game theory topics to undergraduate students abroad; second week of the two-weeks crash course at Oriel College Summer Institute

- **Empirical Asset Pricing (Oxford MSc in Financial Economics)** W 2023, W 2022

  Provided support classes (2+ hours lecture) to Oxford MFE students for 8 weeks
  Teaching assistant to Professor Jiri Knesl

- **Economics and Finance Tutorial** Sp 2023, W 2023, W 2020

  Provided 5+ individual tutorial sessions to undergraduate exchange students for 8 weeks
  (1) Stanford Bing Overseas Studies Program; (2) Oxford Study Abroad Programme

- **Financial Markets (Non-Oxford Undergraduates)** Every Summer and Winter since Sm 20

  Online course for 7 weeks (Course contents equivalent to Oxford undergraduate Finance 101)
  Teaching assistant to Professor Ludovic Phalippou

Professional Activities & Services

- **Session Chair**: FMA 2024, ASSA 2025
- **Program Committee**: FMA European 2025
- **Discussant**: FMA 2023 ($\times$ 2), FMA Asia/Pacific 2024, EFA 2024, FMA 2024 ($\times$ 2), SFA 2024 ($\times$ 3)
- **Workshops / Summer Schools attended**

  2024: Stanford Institute for Theoretical Economics (SITE) - Macroeconomics, Uncertainty, and Volatility session (Stanford University)

  2023: Oxford Machine Learning Summer School (Mathematical Institute, University of Oxford); PHD Summer School, workshop on Subjective Inflation Expectations: Measurement, Determinants, and Effects (NOVA School of Business and Economics, Lisbon)

  2022: European Finance Association Doctoral Workshop (EFA-DW, IESE Business School, Barcelona); Machine Learning and Quantitative Finance Workshop (Oxford-Man Institute, University of Oxford)

2021: Center for Economic Behavior and Inequality (CEBI) Online Ph.D. workshop on subjective beliefs in Macroeconomics and Household Finance (University of Copenhagen, Virtual)

- **University Service**: At Oxford, I served as a co-interviewer for undergraduate admissions in Economics & Management at Jesus College (2020 entry) and at St Edmund Hall College (2023, 2024, and 2025 entry cycles)

Awards, Fellowships and Honors

Shinhan Bank & KAFA (Korea-America Finance Association) Ph.D. Travel Grant	2024
Best Pitch Award, FMA Asia/Pacific 2024	2024
Faculty Research Fund, University of Oxford	2024
EFA Travel Grant	2024
Saïd Business School Foundation Fellowship (full tuition + monthly stipend for four years)	2019
Merit-based Scholarship (half tuition), University of Chicago	2016
Masters Student Best Paper Award, 2nd KU-KIEP-SBS EU Centre Research Paper Contest	2016
Kwanjeong Educational Foundation Scholarship ($\times$ 2)	2015, 2019
Graduation with High Honor, Department of Economics, Korea University	2015
Awards in Monetary Policy Contest (Seoul Regional Contest), Bank of Korea	2014

Personal Information

Citizenship: South Korea (Korean legal name: 류동한)
Language: Bilingual in English and Korean, learning Japanese
Military Service: Republic of Korea Army (2009 - 2011, served 22 months)
Programming: R, Python, STATA
Interests: Gym, Singing

List of PhD courses taken

Korea University: Econometric Analysis, Macroeconomic Theory
University of Chicago: Time Series Analysis, Multivariate Statistical Analysis
University of Oxford: Principles of Financial Economics 1, Principles of Financial Economics 2
Harvard University: Political Economy of Electoral Democracies (audit), Asset Pricing (audit)

References

Mungo Wilson (primary supervisor)
Professor of Finance
Saïd Business School, University of Oxford
mungo.wilson@sbs.ox.ac.uk
Homepage Email

Ludovic Phalippou
Professor of Financial Economics
Saïd Business School, University of Oxford
ludovic.phalippou@sbs.ox.ac.uk
Homepage Email

Robert M. Anderson
Coleman Fung Professor Emeritus of Risk Management
Department of Economics, UC Berkeley
robert.anderson@berkeley.edu
Homepage Email

Lauren H. Cohen
L.E. Simmons Professor of Business Administration
Harvard Business school
lcohen@hbs.edu
Homepage Email

Research Plans & Attendance Rationale for the NBER Innovation Research Boot Camp

As a Ph.D. candidate in Finance at the University of Oxford, my research explores the intersection of asset pricing, political economy, and law and finance. My job market paper, a solo-authored study, introduces textual analysis to measure firm-level legal risk and shows that legal risk is priced in U.S. stock returns. This work highlights how litigation, regulatory shifts, and intellectual property disputes create challenges for firms, particularly those engaged in innovation and long-term investment.

Beyond legal risk, my co-authored work with Professor Mungo Wilson examines political cycles and financial markets, showing that divided government induces political gridlock, reducing economic growth and stock returns. Since innovation thrives in stable policy environments, understanding these political dynamics is key to assessing how firms navigate uncertainty in R&D and investment decisions.

Building on these themes, I aim to apply an asset pricing lens to innovation—an approach that remains largely untapped. My 2024 visiting Ph.D. experience at Harvard Business School under Professor Lauren Cohen reinforced this interest, as his work, including "Misvaluing Innovation" and "The ESG-Innovation Disconnect," provides in-depth insights into the economics of innovation. Building on this foundation, I plan to investigate whether firms facing higher levels of legal risk engage in fewer innovative activities, potentially leading to inefficiencies in innovation-related investment decisions. By exploring this link, my research seeks to bridge asset pricing and innovation economics, shedding light on how legal risk shapes corporate innovation strategies.

Attending the NBER Innovation Research Boot Camp will deepen my understanding of risk and uncertainty in innovation-driven economies while allowing me to engage with leading scholars in innovation, law, and finance. The boot camp's focus on empirical methodologies and economic forces shaping innovation aligns directly with my research, making it an ideal setting for developing my work and building collaborations.

Saïd Business School
University of Oxford
Park End Street
Oxford OX1 1HP
T: +44 (0)1865 288800
www.sbs.oxford.edu

Dear Selection Committee,

I am pleased to recommend Dean Ryu, a Ph.D. candidate in Finance at the University of Oxford, for the NBER Innovation Research Boot Camp 2025. Dean is an exceptionally talented and dedicated researcher whose work sits at the intersection of asset pricing, political economy, and law and finance. As his primary supervisor, I have had the opportunity to closely observe his academic development and intellectual contributions.

In 2024, Dean was a visiting Ph.D. student at Harvard Business School under the sponsorship of Professor Lauren Cohen, where he gained valuable insights into patents and their role in innovation. This experience has naturally complemented his ongoing research on legal risk and its broader implications for firms and financial markets. His work examines how legal uncertainty interacts with firm-level risks, offering a fresh perspective on the economic forces shaping innovation and corporate behaviour.

Beyond his research, Dean is an active member of the academic community. He has served as a discussant at top conferences such as the European Finance Association (EFA) and chaired sessions, contributing to scholarly discussions. His ability to critically assess research and engage with leading academics reflects his commitment to advancing knowledge in the field.

I strongly support Dean's application and have no doubt that he will make the most of this opportunity. Please do not hesitate to contact me if you require any further information.

Kind Regards,

Mungo Wilson
Professor of Finance,
Saïd Business School, University of Oxford
mungo.wilson@sbs.ox.ac.uk